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Bucknell University Bulletin.

NINTH SERIES

JANUARY, 1910

NO. 4



CATALOGUE

1909-1910



Published Bi-monthly by the Bucknell University,
Lewisburg, Pennsylvania.*

~~Withdrawn~~

THE
SIXTIETH CATALOGUE
OF THE
OFFICERS AND STUDENTS
OF

Bucknell University:

COLLEGE OF LIBERAL ARTS

FOR THE YEAR 1909-1910

KLP

BUCKNELL UNIVERSITY DEPARTMENTS.

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SUMMARY OF ATTENDANCE.

The College of Liberal Arts.....	527
The Academy for Young Men.....	95
The Institute for Young Women.....	59
The School of Music for Both Sexes.....	65
Total (deducting names repeated).....	703

CALENDAR.

The Spring Term Begins.....	Thursday, March 31, 1910
Annual Commencement.....	Wednesday, June 22, 1910
The Fall Term Begins.....	Thursday, September 22, 1910
The Winter Term Begins.....	Tuesday, January 3, 1911

BUCKNELL COLORS: Orange and Blue.

BUCKNELL YELL: Yah, yah, yoo! Bucknell B. U.! Wah,
hoo, hoo wah, Bang!

PLAN AND PURPOSE OF THE UNIVERSITY

CORPORATE RIGHTS.

The University was incorporated with full university privileges by the Legislature of Pennsylvania, in an Act approved by the Governor on the fifth day of February, 1846. The management of the University is committed to a Board of Trustees, which is self-perpetuating. The trustees are prohibited, for any cause or under any pretext whatever, from encumbering by mortgage or otherwise the real estate or any other property of the institution. It is required by charter that no religious sentiments are to be counted a disability to hinder the election of an individual to any office among the teachers of the institution, or to debar persons from attendance as pupils, or in any manner to abridge their privileges or immunities as students in any department of the University.

ENDOWMENT.

The total property of the institution exceeds one million dollars. The productive investment amounts to over seven hundred thousand dollars. This money has been the gift of several hundred persons. Among the benefactors of the institution (including only those who have given ten thousand dollars or more) have been: DAVID JAYNE, JOHN PRICE CROZER, WILLIAM BUCKNELL, SAMUEL A. CROZER, HARRY SAMUEL HOPPER, HARRIET BUCKNELL HOPPER, JOHN D. ROCKEFELLER, CATHARINE A. WENTZ, CHARLES MILLER, JOHN J. CARTER, HENRY KIRKE PORTER, DAVID PORTER LEAS, ANDREW CARNEGIE.

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THE MILLION-DOLLAR MOVEMENT.

The Board of Trustees at its meeting in January, 1903, authorized an effort to increase the endowment by one million dollars. It is expected to obtain this sum by gifts and legacies.

FORMS OF GIFTS.

To persons wishing to give money for the education of the young, the following forms of beneficence are suggested:

(a) Departments can be endowed for \$100,000 and upward.

(b) Professorships can be endowed for \$50,000 each.

(c) Fellowships can be endowed for \$10,000 each.

(d) Scholarships can be endowed by a gift of \$1,000 to \$5,000 each, the income to be given toward the expenses of the student. The income is estimated from the average income of the funds of the Institution, and is applied only in the year in which it falls due.

(e) A loan fund has been established. The interest from this is loaned to students, the principal being kept intact. In this way a large, active loan fund accumulates.

(f) A fund for the retirement of professors who, after long service, have, through age or infirmity, become unable to render further efficient service.

Each of these forms of beneficence will bear and perpetuate the name of the donor or of the person designated by him.

FORM OF BEQUEST.

To persons desiring to aid in increasing the efficiency of the schools in their work of preparing young men and young women for usefulness, the following form of bequest is recommended:

I give and bequeath to the Bucknell University, at Lewisburg, Pennsylvania, the sum of.....Dollars for the general purpose of said school, according to the Act of Assembly incorporating the same.

Or if for a special purpose:

I give and bequeath to the Bucknell University, at Lewisburg, Pennsylvania, the sum of.....Dollars for the establishment of a department, professorship, fellowship, scholarship, loan fund, or retirement fund, to bear and perpetuate the name of.....forever.

ORGANIZATION.

The University comprises four schools:

I. THE COLLEGE offers nine Courses of study, each of four years, and each leading to the appropriate degree:

1. The Classical Course.
2. The Philosophical Course.
3. The Course in Jurisprudence.
4. The General Science Course.
5. The Course in Biology.
6. The Course in Chemical Engineering.
7. The Course in Civil Engineering.
8. The Course in Electrical Engineering.
9. The Course in Mechanical Engineering.

II. THE INSTITUTE for young women has three Courses of study, the Literary, the Classical, and the Scientific, leading to diplomas which admit to the Sophomore year in College.

III. THE ACADEMY is designed to fit young men for College, either for the Classical, Philosophical, Scientific, or Technological Courses.

IV. THE SCHOOL OF MUSIC has full Courses in instrumental and vocal music, and grants diplomas to those who complete any of the specified Courses.

These schools are one corporation, have one President, who has general charge, with a Principal in more immediate charge of each of the subordinate departments. All expenses are met from funds in the hands of a common treasurer.

THE BOARD OF TRUSTEES.

CHAIRMAN, HARRY S. HOPPER, ESQ.,
28 South Third Street, Philadelphia.

SECRETARY, A. JUDSON ROWLAND, D. D., LL. D.,
1701 Chestnut Street, Philadelphia.

TREASURER, DAVID PORTER LEAS, A. M.,
400 South Fortieth Street, Philadelphia.

ASSISTANT TREASURER, CALVIN A. HARE, A. M., Lewisburg.

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MILTON G. EVANS, D. D.
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GEORGE M. PHILIPS, PH. D., LL. D.
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HON. JOSEPH C. SIBLEY, LL. D.
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HON. ERNEST L. TUSTIN, A. M.
MR. CHARLES S. WALTON.
JOSEPH K. WEAVER, A. M., M. D.
*HENRY G. WESTON, D. D., LL. D.
HON. SIMON P. WOLVERTON, LL. D.

MEETINGS OF THE BOARD.

The annual meeting is held on Tuesday of Commencement Week, at Lewisburg.

The semi-annual meeting is held on the second Thursday in January in Philadelphia.

* Deceased.

COMMITTEES OF THE BOARD.

COMMITTEE ON INSTRUCTION.

A. JUDSON ROWLAND, D. D., *Chairman.*

MILTON G. EVANS, D. D.	HON. SIMON P. WOLVERTON, LL.D.
REV. LEROY STEPHENS, D. D.	HON. ERNEST L. TUSTIN, A. M.
GEORGE M. PHILIPS, PH. D., LL. D.	RALPH A. AMERMAN,
AND THE PRESIDENT.	

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HON. FRANCIS J. TORRANCE, A. M.	CHARLES S. WALTON,
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HON. SIMON P. WOLVERTON, LL.D.	COL. JOHN J. CARTER, A. M.
GEN. CHARLES MILLER, A. M.	

COMMITTEE ON PUBLICATION.

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DAVID PORTER LEAS, A. M.	MILTON G. EVANS, D. D.
AND THE PRESIDENT.	

THE UNIVERSITY PROPERTY

I. THE MAIN COLLEGE.

The main College building is situated on a hill one hundred feet above the Susquehanna River, and overlooks scenery of unsurpassed beauty. It was designed by Thomas U. Walter, LL. D., architect of the dome and wings of the Capitol at Washington, D. C., and is in the Grecian style, combining dignity and simplicity. The building has a façade of three hundred and twenty feet. The central portion is eighty feet square, and is strengthened in front by four massive columns. On the first floor are six recitation rooms. On the second floor are the halls of the Theta Alpha and Euepia Literary Societies, and Museum of Natural History.

In the third story is Commencement Hall, with a seating capacity of fifteen hundred.

The wings on the eastern and western sides, respectively, of the Main Building, are each one hundred and twenty feet in length and four stories in height, and are used for students' rooms.

Several thousand dollars have been expended recently in improving the College building.

II. THE WEST COLLEGE.

The West College was erected in the year 1900. It is constructed of brick, four stories in height, trimmed with brownstone, and contains ninety-seven rooms, one of which is a hall for the use of the Young Men's Christian Asso-

ciation, and the others are designed for the residence of students.

III. THE EAST COLLEGE.

The East College is a building of brick, trimmed with brownstone. The first story is assigned to the Electrical Laboratory and Physical Laboratory, with a floor surface of some thirty-five hundred square feet, and to recitation rooms. The attic story with a floor surface of some six thousand square feet is used for draughting rooms. The other four stories contain one hundred and twelve rooms for students.

IV. THE BUCKNELL HALL.

Bucknell Hall is the Chapel of the College. In it all the students of the College meet daily for worship.

V. THE CARNEGIE LIBRARY BUILDING.

The library building was given by the Honorable Andrew Carnegie, D. C. L., in the year 1905.

The building is sixty-four feet by ninety, built of pressed brick, and trimmed with brownstone. The center, thirty feet by ninety, is used as a reading room. At the height of sixteen feet there is a gallery extending around the room. The sides, each fifteen feet by ninety, are divided on the first floor into rooms for special collections and for offices. The second and third floors will be used for stack rooms. The building will accommodate about one hundred and fifty thousand volumes.

VI. THE OBSERVATORY.

The Observatory was erected in 1887 and enlarged in 1905. It is designed for the use of students in Practical Astronomy.

The equipment represents the latest improvements in astronomical instruments. It consists of a Clark Equatorial Telescope of ten inches aperture and twelve and one half feet focal length, furnished with a fine position Micrometer and all the usual accessories; a Spectroscope with prism and grating by Brashear; a three-inch prismatic Transit, with a thirteen-wire movable Micrometer; a Fauth Chronograph with Bond Spring Governor; a Waldo Precision Clock for sidereal time, with mercurial compensation, break circuiting apparatus; Daniell's battery and telegraph sounders; a Seth Thomas Clock for solar time; a Sextant; a three-inch Altitude Azimuth Refractor; a set of Meteorological instruments; Celestial globes and maps, and standard works on Theoretical and Practical Astronomy.

VII. THE CHEMICAL LABORATORY.

The Laboratory was erected in 1890, and is a building forty-three feet in width and eighty-six feet in length, with two stories above the basement. In the first story, which has a clear height of fifteen feet, are a lecture room, with seating for one hundred and twenty-five students, and a large working room, in which are tables for individual work in Chemical Analysis; the second floor contains a lecture room and rooms for laboratory work in Organic Science; the basement has rooms for Applied Chemistry, and a fire-proof room. The attic contains a room for dissection in Human Anatomy.

VIII. THE PHYSICAL LABORATORY.

The Physical Laboratory was erected in 1902. It is a building of two stories, fifty by sixty, constructed of brick trimmed with brownstone. The basement serves for the heating and lighting plant of the institution; the main

story, with one room twenty by fifty and another forty by forty-five, is used for shop work.

IX. THE TUSTIN GYMNASIUM.

The basement of the Gymnasium is built of stone, and contains an office for the director, rooms for students, lockers, dressing rooms, and shower baths. The second story is built of brick, rising twenty-two feet from the main floor to the square, and is open to the roof. At the height of twelve feet a running-track gallery, six feet wide, surrounds the room.

X. THE ATHLETIC FIELD.

The field is conveniently located at the foot of "College Hill," and has been graded and fitted up for outdoor sports. In the northwest corner, at the main entrance to the College grounds, a shaded section has been set aside for tennis. The athletic field is sufficiently large for football, baseball, and lacrosse. A running track, a quarter-mile in length, has been constructed on the eastern part of the campus. The Tustin Gymnasium is located at the end of the field, so as to be near to the center of exercise, and easily accessible to the trainers and students.

XI. THE ACADEMY.

1. **The Main Building** of the Academy is situated on "College Hill," and is fifty feet in width by eighty feet in length, and three stories in height. On the first floor is a dining room, thirty feet by thirty-six feet; two recitation rooms, a reception room, and the Principal's office; on the second floor are suites of rooms for the Principal and his family and for the Matron. The third floor is used for students' rooms, each twenty feet by twelve feet, and fourteen feet high.

2. **The East Hall** of the Academy is the Bucknell Cottage for young men, and is contiguous to the Main Building and connected with it by a covered passageway. It is of brick, three stories high, sixty feet in length and forty feet in width, and is finished in natural wood. The building contains a general study room, a recitation room, teachers' apartments, and rooms for students. The rooms have high ceilings, large double windows with inside shutters, and two commodious closets each.

Both buildings are supplied with hot and cold water, are warmed by steam, and lighted by electricity.

XII. BUILDINGS OF THE WOMEN'S COLLEGE.

The buildings and campus of this department are set apart for the use of women taking courses in the College, in the Institute, and in the School of Music.

1. **The Main Building** contains, on the first floor, an office for the Dean and the Registrar, a reception room, the office of the Director of Music, music rooms, recitation rooms, and a dining hall; on the second floor a school-room and a parlor; on the third floor, a library room, teachers' apartments, and students' rooms. The main building was enlarged, 1905, by an addition to the dining hall.

2. **The South Hall**, erected in 1869, is devoted to students' rooms, except the third story, which is used as a gymnasium. This gymnasium has been lately improved and equipped.

3. **The Bucknell Cottage** stands to the southwest of the Main Building, and is connected with it by an enclosed passageway. It is built of brick, in the Queen Anne style of architecture, and has dimensions of forty feet by one hundred feet. The interior is finished in natural wood,

and is equipped, in matters of light, heat and ventilation, with modern improvements.

The portion allotted to students' rooms affords accommodations for forty occupants. These rooms are in suites on the general plan of a center parlor, with bedrooms and closets on either side. In this building is the **Studio**, a spacious room with such adjustments for the admission of light and supply of unencumbered wall surfaces as adapt it for the execution and display of art products.

4. New Cottage for women, with a front of one hundred and twenty-eight feet and a depth of forty feet, rising three stories above the basement, was erected in 1905. It contains eighty-seven rooms.

The **Calisthenium** occupies the upper story, and has a floor surface of over four thousand feet.

All the buildings are supplied with hot and cold water, are warmed by steam, and lighted by electricity.

5. The Campus of the Women's College is separated from the main College grounds by Loomis Street.

XIII. HEATING AND LIGHTING PLANT.

A central steam heating and electric lighting plant has been erected; all the rooms, public and private, in the several buildings of the Institution, are warmed and lighted from this plant.

XIV. THE PRESIDENT'S HOUSE.

The Corporation also owns a house for the use of the President of the University.

THE COLLEGE.

THE FACULTY AND OTHER OFFICERS.

JOHN HOWARD HARRIS, PH. D., LL. D., PRESIDENT,
AND PROFESSOR OF PSYCHOLOGY AND ETHICS.

* FREEMAN LOOMIS, A. M., PH. D.,
PROFESSOR OF MODERN LANGUAGES AND LITERATURE.

GEORGE G. GROFF, M. D., PH. D., LL. D.
PROFESSOR OF ORGANIC SCIENCE.

WILLIAM CYRUS BARTOL, A. M., PH. D.,
PROFESSOR OF MATHEMATICS AND ASTRONOMY.

FRANK ERNEST ROCKWOOD, A. M., LL. D.,
PROFESSOR OF THE LATIN LANGUAGE AND LITERATURE AND DEAN OF
THE COLLEGE.

WILLIAM GUNDY OWENS, A. M.,
PROFESSOR OF CHEMISTRY.

ENOCH PERRINE, A. M., LITT. D.,
PROFESSOR OF THE ENGLISH LANGUAGE AND LITERATURE AND
SECRETARY OF THE FACULTY.

THOMAS FRANKLIN HAMBLIN, A. M., LL. D.,
NEW JERSEY PROFESSOR OF THE GREEK LANGUAGE AND LITERATURE.

* Retired.

BUCKNELL UNIVERSITY

WILLIAM EMMET MARTIN, A. M., L. H. D.,
PROFESSOR OF SOCIOLOGY AND ANTHROPOLOGY.

NELSON FITHIAN DAVIS, SC. D.,
PROFESSOR OF BIOLOGY.

EPHRAIM M. HEIM, PH. D.,
PROFESSOR OF ECONOMIC AND POLITICAL SCIENCE.

GUIDO CARL LEO RIEMER, A. M., PH. D.,
PROFESSOR OF MODERN LANGUAGES.

LLEWELLYN PHILLIPS, A. M., D. D.,
JOHN P. CROZER PROFESSOR OF RHETORIC AND ORATORY.

CALVIN AURAND HARE, A. M.,
PROFESSOR OF CHRISTIAN EVIDENCES AND LOGIC.

THOMAS ALPHEUS EDWARDS, A. M.,
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HENRY THOMAS COLESTOCK, A. M., PH. D.,
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LEO LAWRENCE ROCKWELL, A. M.,
INSTRUCTOR IN GERMAN.

JOHN CLYDE HOSTETTER, SC. B.,
INSTRUCTOR IN CHEMISTRY.

HAROLD MURRAY McCLURE, A. M.,
PRESIDENT JUDGE, SEVENTEENTH JUDICIAL DISTRICT,
LECTURER ON CONTRACTS AND PARTNERSHIP.

ALBERT WILLIAM JOHNSON, A. M.,
ATTORNEY-AT-LAW.
LECTURER ON REAL AND PERSONAL PROPERTY.

CLOYD NILLIS STEININGER, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON BILLS AND NOTES AND ON AGENCY.

WAYLAND HOYT, D. D., LL. D.,
LECTURER ON ORATORY.

WILLIAM EMMET MARTIN, A. M., L. H. D.,
LIBRARIAN.

JOSEPH MEIXELL WOLFE, A. M.,
REGISTRAR OF THE UNIVERSITY.

REV. CALVIN AURAND HARE, A. M.,
FINANCIAL SECRETARY.

FRANK EUGENE BURPEE, A. M.,
SUPERINTENDENT OF BUILDINGS AND GROUNDS.

ALUMNI ASSOCIATIONS.

The General Alumni Association.

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Secretary, PROF. GUIDO CARL LEO RIEMER, PH. D., Lewisburg.

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Secretary, ANDREW GREGG LOOMIS, A. B., LL. B., New York City.

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Secretary, ROY G. BOSTWICK, A. M., Pittsburg.

The Alumni Club of the University of Chicago.

President, A. R. E. WYANT, PH. D., Chicago.

Secretary, JOSEPH C. HAZEN, PH. B., Chicago.

The Alumni Club of Northeastern Pennsylvania.

President, WILLARD MAINE BUNNELL, A. B., ESQ., Scranton.

Secretary, JOHN S. WRIGHTNOUR, D. D., Scranton.

The Alumni Club of Harrisburg.

President, JOHN C. NISSLEY, A. M., ESQ., Harrisburg.

Secretary, HARVEY F. SMITH, M. D., Harrisburg.

The Alumni Club of Washington City.

President, HENRY H. BLISS, A. M., ESQ., Washington, D. C.

Secretary, A. F. ANDERSON, A. B., Washington, D. C.

The Alumni Club of Central Pennsylvania.

President, JUDGE MARTIN BELL, A. M., Hollidaysburg.

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President, PROF. PERCY M. BULLARD, A. B., Williamsport.

Secretary, HARRY CHESTER FITHIAN, A. M., ESQ., Williamsport.

The Alumni Club of Lewisburg.

President, ANDREW A. LEISER, A. M., ESQ., Lewisburg.

Secretary, CHARLES J. WOLFE, A. M., Lewisburg.

The Alumni Club of Sunbury.

President, GEORGE EDWARD DEPPEN, A. B., ESQ.

Secretary, CULLEN FRAZER SHIPMAN, A. B., ESQ.

NAMES OF STUDENTS.

GRADUATE STUDENTS,

NAME.	MAJOR SUBJECT.	RESIDENCE.
EDNA LORINE BACON, A. B.,	<i>Classics.</i>	Dividing Creek, N. J.
IRWIN ALBERT BARTHOLOMEW, SC. B.,	<i>Engineering.</i>	Sunbury
AMOS ETHAN BARTON, A. B.,	<i>Organic Science.</i>	Philadelphia
ELBINA LAVINIA BENDER, A. B.,	<i>Literature.</i>	Lewisburg
MARSHALL LEON BENN, SC. B.,	<i>Science.</i>	Wellsboro
CLARENCE ANTHONY BERNHARD, A. B.,	<i>Jurisprudence.</i>	Gwynedd Valley
WALTER HENRY BERTIN, A. B.,	<i>Science.</i>	Williamsport
BENJAMIN FRANKLIN BIEBER, A. B.,	<i>Sociology.</i>	Center Hall
ALBERT LITTLE BLAKESLEE, PH. B.,	<i>Jurisprudence.</i>	Mendham, N. J.
WINFIELD SCOTT BOOTH, A. B.,	<i>History.</i>	Philadelphia
MARY ISABELLE BOWER, SC. B.,	<i>Library Economics.</i>	Ridley Park
CHARLES ISAIAH BOYER, PH. B.,	<i>Engineering.</i>	Johnstown
JOHN BENJAMIN BOYER, SC. B.,	<i>Mathematics.</i>	Milroy
WALTER BRINKER, SC. B.,	<i>Engineering.</i>	Seattle, Wash.
CHARLES LUCAS BROMLEY, A. B.,	<i>Philosophy.</i>	Rochester, N. Y.
KATHARINE DILL BROWN, SC. B.,	<i>Mathematics.</i>	Philadelphia
PERCIVAL DEWEES BROWNING, A. B.,	<i>Engineering.</i>	Robertsdale

NAME.	MAJOR SUBJECT.	RESIDENCE.
PETER GARFIELD COBER, A. B.,	<i>Jurisprudence.</i>	Connellsville
HAROLD NEWTON COLE, PH. B.,	<i>Organic Science.</i>	Cleveland, Ohio
ELVA SARAH COLEMAN, PH. B.,	<i>English Literature.</i>	Reynoldsville
CLARENCE BURNAP COMSTOCK, SC. B.,	<i>Jurisprudence.</i>	Lewisburg
EDWARD CARROLL CONDIOT, PH. B.,	<i>Greek.</i>	Newton Center, Mass.
JOHN BELMONT COOK, SC. B.,	<i>Science.</i>	Factoryville
WALTER MADISON CORLL, A. B.,	<i>Literature.</i>	Hughesville
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EMMA REBEKAH EBLING, A. B.,	<i>Language.</i>	Williamsport
JAMES EDWARD ELLIOT, A. B.,	<i>Greek.</i>	Govanstown, Md.
WILLIAM FREDERICK ELSESSER, A. B.,	<i>Hebrew.</i>	Philadelphia
JOHN ROY FARE, A. B.,	<i>History.</i>	Muncy
NEWTON CROMWELL FETTER, JR., A. B.,	<i>Philosophy.</i>	St. Clair
WALLACE WILMER FETZER, PH. B.,	<i>History.</i>	Sunbury
AMZI WILSON GEARY, PH. B.,	<i>History.</i>	Patterson, N. J.
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DAVID ALBERT GREEN, SC. B.,	<i>Pedagogy.</i>	Lock Haven
HAVARD GRIFFITH, A. B.,	<i>Hebrew.</i>	Rochester, N. Y.
JAMES ANDREWS GROFF, SC. B.,	<i>Engineering.</i>	Lewisburg

NAME.	MAJOR SUBJECT.	RESIDENCE.
MATTHEW EMERSON HAGGERTY, A. B.,	<i>Jurisprudence.</i>	Ann Arbor, Mich.
HORACE LEROY HALL, A. B.,	<i>History.</i>	Sharon
RALPH WOMELSDORF HALLER, SC. B.,	<i>Modern Language.</i>	Mercersburg
ROY HANNA, PH. B.,	<i>History.</i>	Mayaguez, Porto Rico
CLARA ELEANOR HARMAN, A. B.,	<i>Literature.</i>	Montoursville
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AMMON GROSS HESS, SC. B.,	<i>Organic Science.</i>	Philadelphia
JOHN AMMON HESS, SC. B.,	<i>Biology.</i>	Factoryville
CHARLES MCCALLUM HOWELL, SC. B.,	<i>Engineering.</i>	Northumberland
THEODORE BLAND HOY, SC. B.,	<i>Jurisprudence.</i>	East Orange, N. J.
CLARA MAUD HUMMEL, SC. B.,	<i>Literature.</i>	Kratzerville
ELMER AZIMA HUMMEL, A. B.,	<i>Language.</i>	Kratzerville
WALTER JARRETT, SC. B.,	<i>Jurisprudence.</i>	Sunbury
HENRY S. JONES, PH. B.,	<i>Pedagogy.</i>	Plymouth
LEON ELLISON JONES, SC. B.,	<i>Engineering.</i>	Buffalo, N. Y.
WILLIAM LAWRENCE KALP, A. B.,	<i>Science.</i>	Mount Pleasant
RILEY HARRISON KAUFFMAN, SC. B.,	<i>Chemistry.</i>	Allentown
GEORGE WASHINGTON KERSCHNER, A. B.,	<i>History.</i>	Chester
ROYAL IVAN KNAPP, A. B.,	<i>Education.</i>	Union City
CHARLES WYANT KRAMER, SC. B.,	<i>Engineering.</i>	Oil City
EDWARD CHARLES KUNKLE, A. B.,	<i>History</i>	Scottdale

NAME.	MAJOR SUBJECT.	RESIDENCE.
ONESIMUS GEORGE LANGFORD, A. B.,	<i>History.</i>	Sunbury
CURTIS COOK LESHER, SC. B.,	<i>Jurisprudence.</i>	Lewisburg
LENA RUTH LESHER, A. B.,	<i>History.</i>	Northumberland
MARY LILA LONG, A. B.,	<i>English Literature.</i>	Williamsport
IDA EVALINE LUCHSINGER, A. B.,	<i>History.</i>	West Pittston
ROBERT BRUCE MACKEY, PH. B.,	<i>Organic Science.</i>	Philadelphia
JOSEPH CIPRIANO MACRO, A. B.,	<i>Jurisprudence.</i>	New York City
CHARLES STEPHENS MARSH, SC. B.,	<i>Pedagogy.</i>	Saltsburg
JOSEPH EDWARD MILLEN, PH. B.,	<i>Literature.</i>	Burgettstown
MARY MONTFORT, MOLL, A. B.,	<i>English.</i>	Mahanoy City
FRANCIS LEROY McCAULEY, A. B.,	<i>New Testament Greek.</i>	Buffalo, N. Y.
ROBERT BRUCE MORRIS, A. B.,	<i>Philosophy.</i>	Kutztown
ELMER HENRY MYERS,	<i>Biblical Literature.</i>	Yankton, S. D.
ANNA ELIZABETH NOAKER, PH. B.,	<i>German.</i>	Milton
WALTER LEROY NOLL, SC. B.,	<i>Pedagogy.</i>	Great Neck, Long Island
HELENA MAE OLDS, PH. B.,	<i>German.</i>	Fort Edwards, N. Y.
JAMES THEODORE PARK, SC. B.,	<i>History.</i>	Montandan
HOMER DERIAL PEASE, A. B.,	<i>Greek.</i>	Hermiston, Oregon
GILBERT SOMERS PEREZ, SC. B.,	<i>French Literature.</i>	Chicago, Ill.
CASIMIR PERRIER,	<i>Science.</i>	Washington, D. C.
WILLIAM WALLACE PORTSER, SC. B.,	<i>Railroad Engineering.</i>	Harrisburg

NAME.	MAJOR SUBJECT.	RESIDENCE.
THOMAS BENJAMIN POWELL, A. B.,	<i>Church History.</i>	New Haven, Conn.
LEE RUSSELL RANCK, PH. B.,	<i>Sociology.</i>	Milton
CHESTER BENJAMIN RENN, A. B.,	<i>History.</i>	South Williamsport
GEORGE ALANSON RIGGS, SC. B.,	<i>History.</i>	Rochester, N. Y.
DAVID HOWARD ROBBINS, A. B.,	<i>History.</i>	Phoenixville
ALLEN GERALD RITTER, PH. B.,	<i>Literature.</i>	Deer Lodge, Montana
FREDERICK W. ROBBINS, PH. B.,	<i>History.</i>	Bethlehem
STANLEY HERBERT ROLFE, A. B.,	<i>History.</i>	Nanticoke
CHARLES STILLWELL ROUSH, A. B.,	<i>Philosophy.</i>	Winfield
JOHN CALVIN SANDERS, A. B.,	<i>Hebrew.</i>	Turtle Creek
EDWIN WILDE SAYLOR, A. B.,	<i>Hebrew.</i>	Philadelphia
OLIVE SCHILLINGER, A. B.,	<i>Literature.</i>	Martin's Ferry, Ohio
JACOB HARRY SCHUCH, SC. B.,	<i>Engineering.</i>	Lincoln, Neb.
HELEN AGATHA SELINGER, A. B.,	<i>Science.</i>	Erie
ROBERT FRANCIS SHEPPARD, SC. B.,	<i>Jurisprudence.</i>	Cedarville, N. J.
FRANKLIN ISAAC SIGMUND, A. B.,	<i>Education.</i>	Ebensburg
LILA MABEL SILL, PH. B.,	<i>Literature.</i>	Kane
ARTHUR ANSON SMITH, PH. B.,	<i>Jurisprudence.</i>	Williamsport
STANTON REINHART SMITH, SC. B.,	<i>Biology.</i>	West Chester
ROBERT MCCURDY STEELE, PH. B.,	<i>Language.</i>	Clarion
ANTHONY STEINHILPER, A. B.,	<i>Latin.</i>	Wilmington, Del.

NAME.	MAJOR SUBJECT.	RESIDENCE.
JOHN RAYMOND STRATTON,	<i>Jurisprudence.</i>	Blossburg
MARTHA JANE THOMAS, PH. B.,	<i>German.</i>	Frostburg, Md.
ALBERT OGDEN VORSE, SC. B.,	<i>Forestry.</i>	New Haven, Conn.
ELI SLIFER WALLS, SC. B.,	<i>Organic Science.</i>	Lewisburg
ABRAM PIERCE WALTZ, A. B.,	<i>Hebrew.</i>	Chester
ALVIN MONROE WEAVER, A. B.,	<i>Political Science.</i>	Williamsport
GEORGE EDWARD WEBSTER, SC. B.,	<i>Psychology.</i>	North Plainfield, N. J.
ALFRED MATTHEWS WHITNEY, A. B.,	<i>History.</i>	Rochester, N. Y.
SAMUEL GARBER WILLIAMS, PH. B.,	<i>Jurisprudence.</i>	Waynesboro
CLIFFORD VERNON WILLIAMSON, PH. B.,	<i>Pedagogy.</i>	Perth Amboy, N. J.
FRANK LANDIS YOST, A. B.,	<i>History.</i>	Milton
JOHN ADAM YOUNG, PH. B.,	<i>Education.</i>	Lock Haven
HEBER WILKINSON YOUNGKEN, A. B.,	<i>Biology.</i>	Philadelphia
EMMA PORTER YOUNGMAN, A. B.,	<i>Modern Language.</i>	Danville
IRWIN WELLINGTON ZIEGLER, SC. B.,	<i>History.</i>	Oley
Graduate Students, 116.		

THE SENIOR CLASS.

CLASS OF 1910.

NAME.	RESIDENCE.	ROOM.
PAUL JAMES ABRAHAM,	<i>Smithfield.</i>	No. 15, East College
KATHARINE ETHEL BAILEY,	<i>Wellsboro.</i>	Women's College
JOHN CHARLES BANK,	<i>Newark, N. J.</i>	No. 47, East College
CONRAD LESLIE BASKINS,	<i>North Platte, Neb.</i>	No. 4, East Wing
FLOYD BAYTON BEEMER,	<i>Clark's Summit.</i>	No. 53, West College
JOHN RANCK BELL,	<i>Lewisburg.</i>	No. 52, East College
PORTER LLOYD BENSON,	<i>Waterford.</i>	No. 4, East College
FREDERIC WILLIAM BREIMEIER,	<i>Trevorton.</i>	St. George Street
JOSEPHINE BROWN,	<i>Allenwood.</i>	Allenwood
CAMERON AVOY BUTT,	<i>New Midway, Md.</i>	No. 16, West Wing
GEORGE FRANK CASE,	<i>Troy.</i>	No. 52, West College
MILDRED BLACKWELL CATHERS,	<i>Flemington, N. J.</i>	Women's College
JANE CHAPMAN,	<i>Pittsburg.</i>	Women's College
SAMUEL GREER COCHRAN (Ph. B., Grove City),	<i>Lewisburg.</i>	North Third Street
JOSEPH LESLIE CONOVER,	<i>Atlantic City, N. J.</i>	No. 3, East Wing
CLYDE WILLIAM CRANMER,	<i>South Williamsport.</i>	No. 24, East Wing
WINNIE VIOLA DICKSON,	<i>Akron, Ohio.</i>	Women's College
GEORGE PARSON DRUCKEMILLER,	<i>Sunbury.</i>	No. 119, East College
FRANK SAUNDERS EAKELEY,	<i>Newark, N. J.</i>	No. 11, West Wing

NAME.	RESIDENCE.	ROOM.
ISAAC NEWTON EARLE, JR.,	<i>Lewisburg.</i>	No. 17, East Wing
C. PARK EDMUNDS,	<i>Mill Village.</i>	No. 15½, West Wing
JOSEPH EARLE EDWARDS,	<i>Wilmington, Del.</i>	No. 29, East Wing
GILBERT HAVEN FAGLEY,	<i>Mt. Carmel.</i>	No. 46, West College
GEORGE CAMPBELL FETTER,	<i>St. Clair.</i>	No. 117, East College
ROY AUSTIN FETTERMAN,	<i>Centralia.</i>	No. 43, East College
WILLIAM HAYES GATEHOUSE,	<i>Lewisburg.</i>	North Second Street
BERTHA LAYCOCK GEIS,	<i>Belvidere, N. J.</i>	Women's College
MABEL CORNELIA GIBSON,	<i>Ulysses.</i>	South Third Street
MACARTHUR GORTON,	<i>Smethport.</i>	No. 59, West College
RAYMOND FISHER HAIN,	<i>Bernville.</i>	No. 23, East College
JOHN WESLEY HALLIWELL,	<i>Kane.</i>	St. George Street
HELEN HARE,	<i>Lewisburg.</i>	University Avenue
EDWARD STANLEY HARTSHORN,	<i>Perth Amboy, N. J.</i>	No. 87, West College
HOMER BLAINE HEDGE,	<i>Scenery Hill.</i>	No. 14, East College
DAISY VALLEY HEGARTY,	<i>Madera.</i>	Women's College
PHAREZ HUNTZINGER HERTZOG,	<i>Ephrata.</i>	No. 4, West Wing
STELLA REBECCA HOUGHTON,	<i>Lewisburg.</i>	South Seventh Street
FRANK MURRAY JENNER,	<i>Troy.</i>	No. 11, East Wing
MABEL ELIZABETH JOHNSON,	<i>Mt. Carmel.</i>	Women's College
ROBERT LYNNESS JONES,	<i>Franklin.</i>	No. 35, West College

NAME.	RESIDENCE.	ROOM.
HOMER DAVID KRESGE,	<i>Scranton.</i>	No. 17, East Wing
EMILY ANGELINE LANE,	<i>Lane's Mills.</i>	Women's College
GEORGE STANLEY METZGER,	<i>Montgomery.</i>	St. George Street
GEORGE FREDERICK MITCH,	<i>Philadelphia.</i>	No. 13, East College
MICHAEL JOSEPH McDONOUGH,	<i>Westmoor.</i>	No. 3, East Wing
SARAH MCFARLAND,	<i>Watsonstown.</i>	Watsonstown
JENNIE FRED A MOHRING,	<i>Lancaster.</i>	Women's College
GEORGE HOWARD NORTROP,	<i>Monroeton.</i>	No. 11, East Wing
FRANK HALFPENNY PAINTER,	<i>Muncy.</i>	St. George Street
WEAVER WEDDELL PANGBURN,	<i>Elizabeth.</i>	St. George Street
AMY JULIA PARK,	<i>Montandon.</i>	Montandon
DAVID JESSE PARK,	<i>Montandon.</i>	Montandon
RUBY GEORGIA PIERSON,	<i>Hampton, Va.</i>	Women's College
NEWTON RITNER QUINTIN,	<i>Ariel.</i>	No. 11, West Wing
PHILIP ALFRED RANDLE,	<i>Philadelphia.</i>	No. 70, West College
SARAH LOWRY RAUP,	<i>Milton.</i>	Milton
SARA MATILDA RAY,	<i>Pittsburg.</i>	Women's College
EDWIN CLYDE REBER,	<i>Vineland, N. J.</i>	No. 91, West College
HUGH ELLIS ROSER,	<i>Woodsboro, Md.</i>	No. 94, East College
ROBERT JACOB SAYLOR,	<i>Woodsboro, Md.</i>	No. 16, West Wing
GEORGE BARTLEY SCHROYER,	<i>Lancaster.</i>	No. 26, West College

NAME.	RESIDENCE.	ROOM.
WILLIAM JOSEPH SCHULTZ,	<i>Lewisburg.</i>	South Fifth Street
CLARA LENORA SHELLHAMER,	<i>New Ringgold.</i>	Women's College
ALEXANDER M. SHERWOOD,	<i>Waterford.</i>	No. 10, West Wing
CHARLES NORMAN SILMAN,	<i>St. Marys.</i>	No. 49, West College
PAUL LEWIS SILVIUS,	<i>Sunbury.</i>	No. 120, East College
MARY SLAWSON,	<i>Tunkhannock.</i>	Women's College
EUGENE PAUL SMITH,	<i>Bloomsburg.</i>	No. 32, East Wing
WESLEY LEE SPROUT,	<i>Picture Rocks.</i>	No. 88, East College
ELIZABETH STAGE,	<i>Clearfield.</i>	Women's College
FLORENCE VIRGINIA STAUFFER,	<i>Millville, N. J.</i>	Women's College
HOPE BIEBER STERNER,	<i>Dewart.</i>	No. 16, West Wing
ALBERT KNORR STOCKEBRAND,	<i>Denver.</i>	No. 24½, East Wing
GEORGE THORNLEY STREET, JR.,	<i>Pittsburg.</i>	St. George Street
ERIE MAE TEED,	<i>Oregon Hill.</i>	Women's College
CHESTER JOSEPH TERRILL,	<i>Peter's Creek.</i>	No. 47, West College
IRVING ALLEN TIMLIN,	<i>Clarion.</i>	No. 1, East Wing
LOUIS JAMES VELTE,	<i>Philadelphia.</i>	No. 26, East Wing
KATHALYN VONHUTON VOORHIS,	<i>Peterson, N. J.</i>	Women's College
EMANUEL WARMKESSEL,	<i>Landingville.</i>	No. 22, East Wing
GRACE ETHEL WATKINS,	<i>Scranton.</i>	Women's College
EVA EUNICE WEDDLE,	<i>West Newton.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
GEORGIA LUCETTA WEDDLE,	<i>West Newton.</i>	Women's College
MAX CONRAD WIAINT,	<i>Connellsville.</i>	No. 17, East College
VIOLA EDNA WILHELM,	<i>East Orange, N. J.</i>	Women's College
ELMER BILLINGFELT WOODS,	<i>Reading.</i>	No. 17, East Wing
CORA MAY WRIGHT,	<i>Lewisburg.</i>	South Fifth Street
CHARLES E. YOUNG,	<i>Lewisburg.</i>	St. George Street
	Seniors, 88.	

THE JUNIOR CLASS.

CLASS OF 1911.

NAME.	RESIDENCE.	ROOM.
ELMER MATLOCK APP,	<i>Haddonfield, N. J.</i>	No. 17, West Wing
JOHN HERBERT ARNOLD,	<i>Houtzdale.</i>	St. George Street
WILLIAM NEIL BAKER,	<i>Lewisburg.</i>	Market Street
HARRY STEVENS BASTIAN,	<i>Montgomery.</i>	No. 10, West Wing
ARTHUR THOMAS BAUMER,	<i>New Columbia.</i>	New Columbia
EARL HARLAMAN BOWMAN,	<i>Allentown.</i>	No. 37, East College
JACOB KREIDER BOWMAN,	<i>Campbelltown.</i>	St. George Street
KATHARINE VIRGINIA BRONSON,	<i>Salem, N. J.</i>	Women's College
GROVER NEVIN BROWN,	<i>Friendensburg.</i>	No. 8, East College
CHARLES NORMAN BRUBAKER,	<i>Liverpool.</i>	No. 95, East College
KATHARINE GRAY CARPENTER,	<i>Woodbury, N. J.</i>	Women's College
GRACE BUCHANAN COBB,	<i>Coudersport.</i>	Women's College
HARRY RANKIN COULSON,	<i>Donora.</i>	No. 21, West College
NORRIS IRA CRAIG,	<i>Indiana.</i>	No. 21, West College
NELSON KENNEDY CROSSMAN,	<i>Whites Valley.</i>	No. 13, West Wing
JOSEPH LESLIE CROWELL,	<i>Perth Amboy, N. J.</i>	St. George Street
HELEN WINIFRED CURE,	<i>Jermyn.</i>	Women's College
MARGARET CURTIS,	<i>Montrose.</i>	Women's College
RAYMOND CALEB DECKER,	<i>Kimbles.</i>	No. 19, West Wing

NAME.	RESIDENCE.	ROOM.
WOODS FREDERICK DERR,	<i>Watsonstown.</i>	No. 71, West College
WALTER WILLIAM DUFF,	<i>New Castle.</i>	St. George Street
ARTHUR CLAY FAIRCHILD,	<i>Towanda.</i>	No. 27, West Wing
ALLAN MANCHESTER FITCH,	<i>Factoryville.</i>	No. 9, East College
MERNA JULIA GIFFIN,	<i>Port Richmond, N. Y.</i>	Women's College
MATILDA YOUNG GOLDING,	<i>Lawrenceville, N. J.</i>	Women's College
JOHN WILLIAM GREEN,	<i>Saltsburg.</i>	No. 95, West College
FRANK THOMAS HAMILL,	<i>New Florence.</i>	No. 20, East Wing
EDITH HARPEL,	<i>Mt. Carmel.</i>	Women's College
LESTER ABRAHAM HARRIS,	<i>Lewisburg.</i>	Market Street
CHARLES HUNTER HEACOCK,	<i>Turbotville.</i>	No. 18, East College
JOHN CLARENCE HILBISH,	<i>Northumberland.</i>	Northumberland
EDWARD LEISENREING HOWELL,	<i>Northumberland.</i>	Northumberland
ANDREW JOHN HUSTON,	<i>Tioga Center, N. Y.</i>	No. 94, West College
MORRIS VICTOR HUYETTE,	<i>Reading, Pa.</i>	No. 14, East Wing
MARY JAMESON,	<i>Danville.</i>	Women's College
LEROY JOHNSON,	<i>Lewisburg.</i>	Lewisburg
JOHN KAGE,	<i>Danville.</i>	No. 51, West College
ELIZABETH S. KATES,	<i>Millville, N. J.</i>	Women's College
GEORGE OREN KEISER,	<i>West Milton.</i>	West Milton
JOHN RAY KEISER,	<i>West Milton.</i>	West Milton

NAME.	RESIDENCE.	ROOM.
RAYMOND MINER KENDALL,	<i>Waterford.</i>	No. 2, East College
JULIA ALLEN KREMER,	<i>Watsontown.</i>	Watsontown
JOHN ROBERT KURTZ,	<i>Myerstown.</i>	No. 31, East College
WILLIAM ANDERSON LESHER,	<i>Benton.</i>	No. 93, West College
FREDERICK BRYTON LITTLE,	<i>Uniontown.</i>	No. 55, East College
HERBERT SPENCER LLOYD,	<i>Akron, Ohio.</i>	No. 12, East Wing
ROY ALLEN LONG,	<i>Northumberland.</i>	Northumberland
CHARLES LOSE, JR.,	<i>Williamsport.</i>	No. 34, West College
CHARLES LOVELAND, JR.,	<i>Hammonton, N. J.</i>	No. 37, West College
WALTER HERTZ MANN,	<i>Sunbury.</i>	No. 80, East College
RAYMOND JEWETT MAPLES DEN,	<i>Springfield, Mass.</i>	No. 27, West College
SARA ELLA MEYER,	<i>Rebersburg.</i>	Women's College
ROY MIKLE,	<i>Harrisburg.</i>	No. 63, West College
BLAINE JAMES MORGAN,	<i>Robertsdale.</i>	No. 12, West Wing
NORMAN BLAIR MCANULTY,	<i>Barnesboro.</i>	No. 53, West College
HELEN BROWN MCCLURE,	<i>Watsontown.</i>	Watsontown
WILLIAM McCULLEN,	<i>Philadelphia.</i>	No. 81, West College
LEROY MACFARLAND,	<i>Trenton, N. J.</i>	No. 34, East College
LAURA ELLEN MCGANN,	<i>Lewisburg.</i>	North Third Street
FRANK CLARENCE MCNAIR,	<i>Philadelphia.</i>	No. 11, East College
HAROLD MCCLURE NEFF,	<i>Sunbury.</i>	No. 25, East College

NAME.	RESIDENCE.	ROOM.
DANIEL HENRY NESTER,	<i>New Ringgold.</i>	No. 14, East Wing
VIOLA DOUGLASS NISBET,	<i>West Pittston.</i>	Women's College
NORMAN GOULD OLIVER,	<i>Burlington, N. J.</i>	No. 116, East College
JOHN WATSON PEOPLES,	<i>Jersey Shore.</i>	St. George Street
ALICE CLARK PLATT,	<i>New Haven, Conn.</i>	Women's College
CLARENCE KEISER PUGH,	<i>Pottsville.</i>	No. 17, West Wing
HESTER ELLEN PYLES,	<i>Camp Springs, Md.</i>	Women's College
GRETCHEN ANNETTE RADACK,	<i>Titusville.</i>	Women's College
ELEANOR GRAHAM RAUP,	<i>Milton.</i>	Milton
DORA MEACHAM RAYMOND,	<i>Coudersport.</i>	Women's College
WILLIAM FRANKLIN REDCAY,	<i>Reading.</i>	No. 44, East College
WALTER DANIEL RHOADES,	<i>Allentown.</i>	No. 58, East College
NICHOLAS WHITMAN ROSENBERG,	<i>Uniontown.</i>	No. 60 West College
JOHN ORAM LYTE ROSER,	<i>Woodsboro, Md.</i>	No. 92, East College
KATHRYN MARIE RYAN,	<i>Asbury Park, N. J.</i>	Women's College
EDGAR ANDREW SABLE,	<i>Lewisburg.</i>	No. 27, West Wing
RUTH SUMMERS SAFFORD,	<i>Montrose.</i>	Women's College
HELEN ANNE CLARE SCOTT,	<i>Scranton.</i>	Women's College
JAMES WESLEY SHIPE,	<i>Sunbury.</i>	No. 108, East College
JOHN GURNEY SHOLL, JR.,	<i>Burlington, N. J.</i>	No. 90, East College
LYMAN CYRUS SHREVE,	<i>Erie.</i>	No. 90, West College

NAME.	RESIDENCE.	ROOM.
ROBERT DEAN SISSON,	<i>Factoryville.</i>	No. 110, East College
FRED WILLIAM SMALL,	<i>Hammonton, N. J.</i>	No. 10, East Wing
HARRY LEE SMITH,	<i>Lewisburg.</i>	Lewisburg
EDGAR AMBROSE SNYDER,	<i>Weaversville.</i>	No. 60, East College
PAUL CLINTON SNYDER,	<i>Numidia.</i>	No. 5, East Wing
JESSE KIMMEL SPURGEON,	<i>Uniontown.</i>	No. 2, West Wing
ANNE STEINFURST,	<i>Titusville.</i>	Women's College
STUART WILLIAMS SWEET,	<i>Utica, N. Y.</i>	St. George Street
BENJAMIN RUSSELL THATCHER,	<i>Unionville.</i>	No. 114, East College
JOHN WEBSTER TRAUGER,	<i>Revere.</i>	No. 22, East Wing
JONAS TUMAN,	<i>Atlantic Highlands, N. J.</i>	No. 61, West College
JAMES ARTHUR TYSON,	<i>Montgomery.</i>	St. George Street
JOSE ANDRES VILLALON,	<i>Puerto Plata, W. I.</i>	No. 29, West College
JOHN HERBERT WAITE,	<i>Lock Haven.</i>	No. 59, East College
VERNA AMANDA WHITAKER,	<i>Millville, N. J.</i>	Women's College
EDWARD REIMING WOOD,	<i>Jersey Shore.</i>	No. 25, West College

THE SOPHOMORE CLASS.

CLASS OF 1912.

NAME.	RESIDENCE.	ROOM.
MARC LUTHER BALDWIN,	<i>League, W. Va.</i>	No. 16½, West Wing
EARL RUDOLPH BARTHOLOMEW,	<i>Lewisburg.</i>	Lewisburg
NELLIE RUTH BERIE,	<i>Lewisburg, R. F. D.</i>	Lewisburg, R. F. D.
CLARENCE BLAKE BREWER,	<i>Susquehanna.</i>	No. 45, West College
ALBERTA LILLIAN BRONSON,	<i>Girardville.</i>	Women's College
ADA ETHEL BROOKS,	<i>Wellsboro.</i>	Women's College
GUY CLEVELAND BROSIUS,	<i>Rauchtown.</i>	No. 74, East College
MAZA RITTER CALLAHAN,	<i>Montoursville.</i>	Women's College
JAMES FRANCIS CLARKE,	<i>Kane.</i>	St. George Street
RALPH EMERSON CLOYD,	<i>Orbisonia.</i>	No. 66, West College
FLORENCE MAY CLUM,	<i>Scranton.</i>	Women's College
LLOYD LANGDON COIL,	<i>Hopbottom.</i>	No. 23, West Wing
ALEXANDER CLEVELAND CONNER,	<i>Pittsburg.</i>	St. George Street
JOHN RAY CONOVER,	<i>Atlantic City, N. J.</i>	No. 4, East Wing
GEORGE WATMORE CORREY, JR.,	<i>Milton.</i>	Milton
ELWOOD HARRIS COURTER,	<i>Basking Ridge, N. J.</i>	No. 7, East Wing
LEON MOYER CRANDELL,	<i>Towanda.</i>	No. 11, East Wing
BERTRAM ELMER DANIELS,	<i>Joliet, Ill.</i>	No. 8, West College
RALPH FREDERICK DAVENPORT,	<i>Plymouth.</i>	No. 27, East Wing

NAME.	RESIDENCE.	ROOM.
STANLEY POWELL DAVIES,	<i>Conshohocken.</i>	No. 9, East Wing
FRANK GARFIELD DAVIS,	<i>Warsaw.</i>	No. 14, West Wing
OLIVER SAMUEL DELANCEY,	<i>Blairsville.</i>	No. 15, West Wing
NORA ELIZABETH DODSON,	<i>Hazleton.</i>	Women's College
CHARLES BRYANT DRAKE,	<i>Old Forge.</i>	No. 82, East College
CHARLES EDGAR DREHER,	<i>Shamokin.</i>	No. 38, West College
EDWARD PATCHIN DUFTON,	<i>Clearfield.</i>	No. 62, East College
WALTER SAMUEL EISENMENGER,	<i>Warrensville.</i>	No. 6, East Wing
WILLIAM WEBSTER EISTER,	<i>Lewisburg.</i>	South Third Street
HARRY BENNETT ENGLISH,	<i>Wyoming.</i>	No. 21, East Wing
MYRON EUGENE FAIRCHILD,	<i>Montandon.</i>	Montandon
HOWARD FARQUHAR,	<i>West Brownsville.</i>	No. 48, West College
JAY HUDSON FLECKENSTINE,	<i>Milton.</i>	Milton
JULIUS FRANKEL,	<i>West Pittston.</i>	No. 69, East College
VERA MILDRED FROST,	<i>Brookville.</i>	Women's College
ARTHUR RICKENBAUGH GERHART,	<i>Lewisburg.</i>	Lewisburg
RICHARD DRAPER GETTYS,	<i>Homestead.</i>	No. 28, East Wing
WILLIAM ALFRED GOEHRING,	<i>Zelienople.</i>	No. 25, East Wing
FRANKLIN OSCAR GORSUCH,	<i>Finksburg, Md.</i>	No. 48, East College
FRANCES LLOYD GROFF,	<i>Lewisburg.</i>	Lewisburg
FRANKLIN JOSEPH GRONDE,	<i>Cogan Valley.</i>	No. 2, West Wing

NAME.	RESIDENCE.	ROOM.
CAREY WATROUS HARDING,	<i>Clarion.</i>	No. 23, East Wing
COLEMAN JOHN HARRIS,	<i>Lewisburg.</i>	University Avenue
JAMES PARDON HARRIS,	<i>Lewisburg.</i>	University Avenue
JAMES EUGENE HART,	<i>West Pittston.</i>	No. 70, East College
FRANK RAHN HEAN,	<i>Harrisburg.</i>	No. 30, West College
LAWRENCE AMBROSE HENDERSON,	<i>Montgomery.</i>	Montgomery
EVA HIMMELREICH,	<i>Lewisburg.</i>	South Seventh Street
EARL EDWARD HINMAN,	<i>Monroeton.</i>	No. 15, East Wing
RUSSELL CONWELL HOFFMAN,	<i>Cheltenham.</i>	No. 19, West Wing
DALE DAVIS HOLLENBAUGH,	<i>Lewisburg.</i>	South Fourth Street
FRANCIS HARPER HUTCHINSON,	<i>Sunbury.</i>	St. George Street
FREDERICK IGLER,	<i>Scranton.</i>	No. 81, East College
HOWARD JOHNSON,	<i>Wilmington, Del.</i>	South Fifth Street
EMMA ELIZABETH KEISER,	<i>Mt. Carmel.</i>	Women's College
JOSEPH HENRY KERR, JR.,	<i>Uniontown.</i>	No. 76, West College
PERCY POWERS KINNAMAN,	<i>Washington, N. J.</i>	No. 20, West Wing
FREDERICK LANGE, JR.,	<i>Audubon, N. J.</i>	No. 12, East Wing
FRANK WILLIAM LANGFORD,	<i>Lewisburg.</i>	South Sixth Street
HELEN LEVEGOOD,	<i>Jersey Shore.</i>	Women's College
LYMAN LLEWELLYN LISTER,	<i>Trenton, N. J.</i>	No. 9, West Wing

NAME.	RESIDENCE.	ROOM.
OLIVE MARIE LONG,	<i>Lock Haven.</i>	Women's College
WENDELL MARKLE,	<i>Uniontown.</i>	No. 76, West College
ROBERT WILLIAM MEYER,	<i>Rebersburg.</i>	No. 18, West Wing
WILLIAM HENRY MILLER,	<i>Greenburr.</i>	No. 16, East Wing
HAROLD WILLIAM MUSSER,	<i>Lewisburg.</i>	South Third Street
FRED McALLISTER,	<i>West Pittston.</i>	St. George Street
DAVID A. McNEAL,	<i>Canton.</i>	No. 20, West Wing
MERTON MILES OGDEN,	<i>Leonta, N. Y.</i>	No. 15, West Wing
KATHRYN EVA OLDT,	<i>Lewisburg.</i>	Lewisburg
WILLIAM LLEWELLYN OWENS,	<i>Pottsville.</i>	No. 54, East College
EDWARD ROY PARKE,	<i>Troy.</i>	St. George Street
TILMAN HARRISON PAUL,	<i>Milton.</i>	Milton
ELLIS CLYDE PERSING,	<i>Snydertown.</i>	No. 89, East College
PEARL IRENE REAM,	<i>Lewisburg.</i>	South Fifth Street
GEORGE FRANCIS REITER,	<i>Muncy.</i>	No. 16, East Wing
PAUL LEON RIEHL,	<i>Lewisburg.</i>	Market Street
EVA MAY RITTENHOUSE,	<i>Granville.</i>	Women's College
FREDERICK VALENTINE ROCKEY,	<i>Lebanon.</i>	St. George Street
JOHN HENRY RUFUS ROBERTS,	<i>Reading.</i>	No. 83, East College
GRACE ROSSITER,	<i>Sunbury.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
DAVIS CLIFFORD RUTH,	<i>Malvern.</i>	St. George Street
HELEN LAURA RUTH,	<i>Hanover.</i>	Women's College
ALICE PERAULT SCOTT,	<i>Milton.</i>	Milton
CESCIL TAGGART SMITH,	<i>Dunbar.</i>	No. 4, West College
SUSAN CAROLINE SNYDER,	<i>Allentown.</i>	Women's College
LAWRENCE EMERSON SPROUT,	<i>Picture Rocks.</i>	No. 86, East College
ANNETTA AMELIA STAHL,	<i>Lewisburg.</i>	Market Street
HOWARD WARNER STARKWEATHER,	<i>Carbondale.</i>	No. 30, East Wing
ROBERT AUGUSTUS STOUGHTON,	<i>Lewisburg.</i>	Market Street
RUBY VANMINKA STUCK,	<i>Tower City.</i>	Women's College
HARRISON SCHUYLER SWEET,	<i>Utica, N. Y.</i>	No. 20, East College
WILLIAM GLENN TEGTMEIER,	<i>Conshohocken.</i>	No. 9, East Wing
JESSE ROY TYSON,	<i>Norristown.</i>	No. 54, West College
CHESTER AVERY WAGE,	<i>Factoryville.</i>	No. 21, West Wing
RALPH SOMER WALTER,	<i>Harrisburg.</i>	No. 56, West College
HARRY REID WALTMAN,	<i>Millville, N. J.</i>	No. 23, East Wing
ARTHUR DAVID WALTZ,	<i>Hepburnville.</i>	No. 13, West Wing
EARL GLADSTONE WATKINS,	<i>Scranton.</i>	No. 19, East College
HYMAN MAYOR WEINSTEIN,	<i>Kersey.</i>	No. 50, West College
MARY GILFILLAN WEISER,	<i>Liverpool.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
JOHN SHERMAN WELCHONS,	<i>Falls Creek</i>	No. 13, East Wing
VIOLET LOUISE ELEANOR WETTERAU,	<i>Hazleton.</i>	Women's College
SAMUEL LEDY WILSON,	<i>Phillipsburg.</i>	No. 7, East Wing
DANIEL MAYNARD WISE,	<i>South Williamsport.</i>	No. 24, East Wing
Sophomores, 104.		

THE FRESHMAN CLASS.

CLASS OF 1913.

NAME.	RESIDENCE.	ROOM.
JOHN NEWTON ARNDT,	<i>Milton.</i>	Milton
JOLETTA MAY ARTHUR,	<i>Jersey City, N. J.</i>	Women's College
KENNETH BARTLESON BANKS,	<i>Pottstown.</i>	No. 23, West College
BRIGHT WILKES BECK,	<i>Cressona.</i>	No. 35, East College
CHARLES BAKER BERNHART,	<i>Lewisburg.</i>	North Second Street
HANNAH CECIL BERTIN,	<i>South Williamsport.</i>	Women's College
JOHN WESLEY BRESSLER,	<i>Slatington.</i>	No. 22, West Wing
MARY MARGARET BROWN,	<i>Braddock.</i>	South Front Street
EDWIN CHARLES BRUSH,	<i>Jackson.</i>	No. 20, East Wing
CECIL RUSSELL CHILDS,	<i>Truxton, N. Y.</i>	Women's College
ALBERT MAHLON COBER,	<i>Garrett.</i>	No. 8, West Wing
JAMES DANIEL COLLISON,	<i>Elizabeth.</i>	No. 67, West College
FREDERICK LINCOLN CONBICK,	<i>Trenton, N. J.</i>	No. 9, West Wing
MILES ELTON DEAN,	<i>Altoona.</i>	No. 71, East College
SALVADOR DEPIERRO,	<i>Freeland.</i>	No. 5, West Wing
CHANNING PONTIUS DERR,	<i>Lewisburg.</i>	Market Street
JOHN CONRAD EGOLF,	<i>Douglassville.</i>	No. 32, West College
HARRY SCHEIDY EVERETT,	<i>Slatington.</i>	No. 22, West Wing
ELMER ELLSWORTH FAIRCHILD,	<i>Lewisburg.</i>	R. F. D. No. 2

NAME.	RESIDENCE.	ROOM.
WALTER DAYTON FARLEY,	<i>Lewisburg.</i>	South Fourth Street
JOHN DIETRIECH WITTICH FETTER,	<i>St. Clair.</i>	No. 118, East College
MABIAN FISCHLER,	<i>Wellsboro.</i>	Women's College
HOWARD VOELKER FISHER,	<i>Tamaqua.</i>	No. 65, West College
THOMAS JOHN FOLEY,	<i>Tamaqua.</i>	No. 65, West College
WILLIAM REINHART FRICK,	<i>Milton.</i>	Milton
CHARLES ADAM FREYLING,	<i>Sunbury.</i>	No. 21, West Wing
MARY LOUISA GALER,	<i>Lewisburg.</i>	North Third Street
WARNER MILLER GALLOWAY,	<i>Lewisburg.</i>	North Fifth Street
FREDERICK KNAPP GETZ,	<i>Lewisburg.</i>	North Fourth Street
REBEKAH MONAGHAN GIBBONS,	<i>Dunmore.</i>	Women's College
HAROLD WENDELL GIFFIN,	<i>Port Richmond, N. Y.</i>	No. 32½, West Wing
JOHN EDWARD GLEASON,	<i>Philadelphia.</i>	No. 44, West College
MARWOOD BENJAMIN GLOVER,	<i>Collingdale.</i>	No. 12, East College
HOWARD MARSHALL GOEHRING,	<i>Zelienople.</i>	No. 25, East Wing
RAYMOND RUSSELL GOEHRING,	<i>Zelienople.</i>	No. 25, East Wing
JAMES BOWEN GRIFFITH,	<i>Buffalo, N. Y.</i>	No. 84, East College
MAX GROSSMAN,	<i>Mt. Carmel.</i>	No. 39, West College
GEORGE FREEMAN HAINES,	<i>Winfield.</i>	Winfield
BENJAMIN SOLOMAN HARRIS,	<i>Lewisburg.</i>	Market Street
CHARLES DAVID HASSON,	<i>Windber.</i>	No. 53, East College

NAME.	RESIDENCE.	ROOM.
BERKLEY VIRGINIUS HASTINGS,	<i>Milton.</i>	<i>Milton</i>
ORWILL VAN WICKLE HAWKINS,	<i>Freneau, N. J.</i>	No. 30, West Wing
ADDA HAYMAN,	<i>Turbotville.</i>	Turbotville
WILLIAM SHIMER HEINEN,	<i>Milton.</i>	<i>Milton</i>
RUTH TUSTIN HEINSLING,	<i>Altoona.</i>	Women's College
CARLTON RALLARD HOOKER,	<i>Troy.</i>	No. 15, East Wing
ETHEL MARGARET HOTTENSTEIN,	<i>Milton.</i>	<i>Milton</i>
MARY JANE IREY,	<i>Danville.</i>	Women's College
LOGAN EARL JACKSON,	<i>Williamsport.</i>	No. 2, East Wing
ALEXIS WOOLMAN KEEN,	<i>Salem, N. J.</i>	No. 28, West Wing
HARRY XING KELLY,	<i>Brookville.</i>	No. 14, West Wing
JOSEPH EDWARD KELLY,	<i>Olyphant.</i>	No. 63, East College
HENRY ELLSWORTH KERBEL,	<i>Ashland.</i>	Market Street
JOSEPH CLIFFORD KEYSER,	<i>Milton.</i>	<i>Milton</i>
BERTRAND KINNEMAN,	<i>Washington, N. J.</i>	No. 26, West Wing
WALFORD CLYDE LEWIS,	<i>Scranton.</i>	No. 22, West College
MYETLE THERESA LINGENFELTER,	<i>Altoona.</i>	Women's College
EDWARD POPE LITTLE,	<i>Montrose.</i>	No. 33, West College
SAMUEL HARRISON MARKOWITZ,	<i>Pottstown.</i>	No. 32½, East Wing
MINNIE ETHEL MAYNARD,	<i>Williamsport.</i>	Women's College
HAROLD PATTERSON MEEK,	<i>Allenwood.</i>	No. 51, East College

NAME.	RESIDENCE.	ROOM.
GEORGE MIDDLETON,	<i>Edwardsville.</i>	No. 27, East Wing
HARWOOD MASON MILLER,	<i>Monroeton.</i>	No. 15, East Wing
MARY FLORENCE MITCHELL,	<i>Penn's Grove, N. J.</i>	Women's College
KATHRYNE MURRAY,	<i>Scranton.</i>	Women's College
JAMES FOCHT MCCLURE,	<i>Lewisburg.</i>	University Avenue
JOSEPH LESLIE MCKEAGUE,	<i>Millville, N. J.</i>	No. 19, East Wing
GEORGE EDWARD O'BRIEN,	<i>Clearfield.</i>	No. 111, East College
FENWICK MERRION OPEL,	<i>St. Mary's.</i>	No. 23, West Wing
ELSIE MARTHA PARK,	<i>Montandan.</i>	Montandan
JEROME LUNDY PAULHAMUS,	<i>Dewart.</i>	Dewart
HARRY GUNDY PAWLING,	<i>Bucknell.</i>	Bucknell
SETH TODD PERLEY,	<i>Erie.</i>	No. 88, West College
CLAYTON ELMER PHILLIPS,	<i>Cressona.</i>	No. 63, East College
GEORGE THURMAN PIERSOL,	<i>Honey Brook.</i>	No. 68, West College
STERLING THOMAS POST,	<i>Dalton.</i>	No. 8, West Wing
JAMES MECKLEY POTT,	<i>Jersey Shore.</i>	No. 64, East College
MARY DELINDA POTTER,	<i>Center Hall.</i>	Women's College
GEORGE WILLIAM POTTS,	<i>Greensburg.</i>	No. 49, East College
HARTLEY CARR POWELL,	<i>Salem, N. J.</i>	No. 42, East College
ALBERT NORMAN REDELIN,	<i>Freeland.</i>	No. 24, West College

NAME.	RESIDENCE.	ROOM.
EARL MORGAN RICHARDS,	<i>Reading.</i>	No. 19, East Wing
LEWIS PERRINE ROBINSON,	<i>Danville.</i>	No. 78, East College
ROBERT LEVI ROOKE,	<i>Winfield.</i>	Winfield
CHARLES LOY SANDERS,	<i>Mifflinburg.</i>	Mifflinburg
CLAY SHOEMAKER SANDERS,	<i>Mifflinburg.</i>	Mifflinburg
VICTOR SCHMID,	<i>Philadelphia.</i>	No. 6, West Wing
LOUIS CARL SEABRIGHT,	<i>Martin's Ferry, Ohio.</i>	No. 51, West College
DAVID YEAKEL SEISHOLTZ,	<i>Alburtis.</i>	No. 31, East Wing
ROBERT ROWE SELLERS,	<i>Emmitsburg, Md.</i>	No. 27, West College
HAROLD AUGUSTUS SHAFFER,	<i>Lewisburg.</i>	South Second Street
JOSEPH PARDOE SHEARER,	<i>Milton.</i>	Milton
JOHN FRANCIS SHEEHAN, JR.,	<i>Patton.</i>	No. 113, East College
LOUISA PEARL SHOEMAKER,	<i>Salem, N. J.</i>	Women's College
EDWARD WETHERELL SMITH,	<i>Salem, N. J.</i>	No. 28, West Wing
HENRY GRIGGS WESTON SMITH,	<i>Bloomsburg.</i>	No. 32, East Wing
CHARLES HAMILTON STEELE,	<i>Washington.</i>	No. 52, West College
HENRY SMITH STEELE,	<i>New Alexandria.</i>	No. 50, East College
PAUL STEIN,	<i>Lewisburg.</i>	Market Street
AARON MILES STETTLER,	<i>Middleburg.</i>	No. 112, East College
RALPH AMOS STILL,	<i>Danville.</i>	No. 77, East College

NAME.	RESIDENCE.	ROOM.
LESLIE WELLINGTON STOUT,	<i>Audubon, N. J.</i>	No. 40, East College
BOYD HENRY WALTER,	<i>Kittanning.</i>	No. 24, West Wing
KENNETH HENRY WENDLING,	<i>Wyoming.</i>	No. 21, East Wing
HERMAN EMERSON ZEHNER,	<i>Tamaqua.</i>	No. 32, East College
	Freshmen, 105.	

NON-MATRICULATES.

NAME.	RESIDENCE.	ROOM.
HUGH MAX BULLARD,	<i>Newberry.</i>	No. 5, West College
GEORGE L. CAMPUZANO,	<i>Philadelphia.</i>	No. 41, East College
RALPH H. EVERITT,	<i>Watsonstown.</i>	Watsonstown
CLARENCE R. GIBSON,	<i>Washington, N. J.</i>	No. 26, West Wing
ALBERT A. JORDAN,	<i>Philadelphia.</i>	No. 39, East College
FRANK LLOYD KERSTETTER,	<i>Nanticoke.</i>	No. 77, West College
EDUARDO MARURI,	<i>Guaquyl, Ecuador,</i>	No. 58, West College
JOHN MCCULLOCH,	<i>Eleanora.</i>	No. 8, West Wing
WIDGERY LEWIS MCWRIGHT,	<i>Orangeburg, S. C.</i>	Brown Street
THOMAS O'LEARY,	<i>DuBois.</i>	No. 31, West College
CHARLES PIEZ,	<i>Hammonton, N. J.</i>	No. 40, West College
WALTER PIEZ,	<i>Hammonton, N. J.</i>	No. 40, West College
FRANK RAYMOND RICHARDS,	<i>Crafton.</i>	No. 38, East College
HARRY SINGERMAN,	<i>Altoona.</i>	No. 93, East College

NAME.	RESIDENCE.	ROOM.
LOUIS ADAM WALDNER,	<i>Ashland.</i>	No. 61, East College
ALBERT BACON WINTER,	<i>Zelienople.</i>	No. 103, East College
GEORGE W. WISHART,	<i>Indiana.</i>	No. 19, West College
Non-Matriculates, 17.		

SUMMARY.

Graduate Students	116
The Senior Class.....	88
The Junior Class.....	97
The Sophomore Class.....	104
The Freshman Class.....	105
Non-Matriculates	17
Total	527

ADMISSION OF STUDENTS

TO FRESHMAN STANDING.

EXAMINATIONS.

Examinations for admission to the Freshman Class are held on Monday of Commencement week. Candidates will assemble in Bucknell Hall at 8.30 A. M.

Similar examinations are also held on the day preceding the opening of each year. In special cases candidates may be examined and admitted at other times in the year.

There must be furnished to the President by the candidate satisfactory testimonials of good moral character, and, if from another college, a certificate of honorable dismissal must be presented. But no student from another college will be admitted except at the beginning of the Academic year.

The required age for admission to the Freshman Class is fifteen years.

I. GENERAL REQUIREMENTS.

Candidate for admission to any of the Courses must pass examinations in the following:

1. ENGLISH.

- a. Writing from dictation.
- b. English Grammar.
- c. Elements of Rhetoric—Invention, Style, and Punctuation.
- d. A brief composition upon a subject assigned at the time of the examination. No candidate will be accepted in English whose work is notably defective in spelling, punctuation, idiom, or division into paragraphs.

e. **Reading.**—The books set for reading are those designated by the College Association of the Middle States and Maryland. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple

questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books. In preparation for this part of the requirement, it is important that the candidate shall have been instructed in the fundamental principles of Rhetoric.

f. Study and Practice.—This part of the examination presupposes the thorough study of each of the works named by the College Association. The examination will be upon subject-matter, form, and structure.

The candidate is advised to do reading parallel and subsidiary to these books; he is recommended to commit to memory as much English poetry as possible, and to pay close attention to the essentials of Grammar.

2. MATHEMATICS.

a. Arithmetic, including the Metric System;

b. Algebra, including Quadratic Equations. The requirements in this study include the treatment of Radicals.

c. Plane Geometry.

3. LATIN.

a. Latin Grammar;

b. Latin Prose Composition;

c. Four books of Cæsar's Commentaries.

4. HISTORY.

a. History of Greece;

b. History of Rome;

c. History of the United States.

5. SCIENCE.

a. Physiology;

b. Physics;

c. Geography—Descriptive and Political, and Physical.

6. FREE-HAND DRAWING.

II. PARTICULAR REQUIREMENTS.

A. To enter the Classical Course, the candidate, in addition to the General Requirements, must pass examinations in the following:

1. GREEK.

- a. Greek Grammar;
- b. Greek Prose Composition;
- c. Greek Reader;
- d. Four Books of Xenophon's Anabasis;
- e. Three Books of Homer's Iliad.

2. LATIN.

- a. Seven Orations of Cicero;
- b. Six Books of the Æneid;
- c. Ovid, 1200 lines.

B. To enter the Latin division of the Philosophical Course, or the Course in Jurisprudence, the candidate, in addition to the General Requirements, must pass examination in the following:

1. LATIN.

- a. Seven Orations of Cicero;
- b. Six Books of the Æneid;
- c. Ovid, 1200 lines.

2. Any six units selected from group E.

2. To enter the Greek division of the Philosophical Course, the candidate, in addition to the General Requirements, must pass examination in the following:

1. GREEK.

- a. Greek Grammar;
- b. Greek Prose Composition;
- c. Greek Reader;
- d. Four Books of Xenophon's Anabasis;
- e. Three Books of Homer's Iliad.

2. Any six units selected from group E.

D. To enter the General Science Course, the Course in Biology, the Course in Chemistry, or the Course in Civil, in Mechanical or in

Electrical Engineering, the candidate, in addition to the General Requirements, must pass examination in the following:

1. GERMAN OR FRENCH.

The Grammar of the Language, Composition, and Translation at sight of easy prose (three units).

2. SOLID GEOMETRY.

3. Any eight units selected from group E.

E. Candidates for admission to the Philosophical Course or to the Scientific Courses must present in the case of the former, six units, in case of the latter, eight units, selected from the following:

English Literature, History of Modern Europe, History of England, Civics; Zoölogy, Physiography, Botany, Geology, Astronomy; Solid Geometry, Chemistry with Laboratory Practice; French (three units); German (three units).

The time requirement for a unit is five hours a week for a term of twelve weeks.

The requirements for admission to the various Courses amount to the work of a High School with a four years' course.

ADMISSION ON CERTIFICATE.

Graduates of Bucknell Institute, in any of the Courses, will be admitted to the Sophomore year of the corresponding Course in the College.

Graduates from Bucknell Academy, in any of the Courses, will be admitted to the corresponding Courses in the College upon the Diploma of the Academy.

Graduates of Pennsylvania State Normal Schools are admitted to the General Science Course without examination.

Certificates of the College Entrance Examination Board are accepted for admission, and also certificates of the State Board for Examination of Candidates for registration as Students of Law, and Regents' certificates of New York State.

Students who have graduated in a four years' Course of study in **Preparatory and High Schools** of superior standing may be admitted upon the certificate of the Principal of the school from which they come without examination upon the subjects specified in the certificate.

All students received upon certificate are regarded as in conditional standing, and will not be matriculated unless their work during the first ten weeks of the term shows that their preparation has been sufficiently thorough.

SPECIAL STUDENTS.

Students who do not desire to take a full regular course can enter and select special shorter courses with the sanction of the Faculty; but in all cases, satisfactory examinations must be passed upon the subjects required for admission to the Freshman Class of the Course from which they intend to select.

ADVANCED STANDING.

I. General Requirements. A proportionate increase of age is required for admission to advanced classes over that required for admission to Freshman standing. Other general requirements are the same as for admission to the Freshman Class.

II. Particular Requirements. Candidates for admission to advanced classes are examined both as for admission to Freshman standing and also on the studies that have been pursued by the class which they desire to enter.

MATRICULATION.

Matriculation gives membership in the College and is a condition precedent to all degrees and honors as well as to honorable dismission. No student is admitted to matriculation until he has shown by his class work during at least ten weeks and by his deportment that he is worthy of membership in the College.

HONORABLE DISMISSION.

No person will be dismissed from the College as in good standing who leaves it while under censure; and papers of dismission given to those leaving while under a condition shall distinctly mention the condition; nor will honorable dismission be granted to

any student who has not discharged all his pecuniary obligations to the Institution. No papers of dismissal or of grades will be granted to a student who has not completed one year of work; nor are credits certified except for work done in class in this College. All certificates of dismissal are signed by the President of the University and sealed with the corporate seal, and no others are valid.

No certificate or statement as to work done in his department is granted by any professor or instructor to an undergraduate.

COURSES OF STUDY.

The Bucknell College offers nine courses of study leading to degrees in Arts, Philosophy, and Science. Each of the Courses extends through four years. For the Bachelor's degree, thirty-six courses, each of one term five hours a week, must be presented, as well as the prescribed work in oral and written Expression, the former of which extends through two years of the course and the latter through four years, and also twelve lecture courses.

I. The Classical Course, leading to the degree of Bachelor of Arts, aims to furnish a liberal education in classical and modern Literature, in the Sciences and Arts. Candidates for the degree of Bachelor of Arts must present at least three courses in German or French.

II. The Philosophical Course, with Latin or Greek in each of its two divisions, aims to furnish a thorough training in advanced studies to those who desire to pursue but one of the Ancient Languages. Those who have completed the studies of the Course, including not less than four courses of German and French, are admitted to the degree of Bachelor of Philosophy. But a candidate in the Philosophical Course who offers nine College courses in either of the Ancient Classical languages or nine College courses in a Modern language in addition to the required work in Latin or Greek may receive the degree of Bachelor of Arts.

III. The Course in Jurisprudence, leading to the degree of Bachelor of Arts, covers four years of work in Law, Political Science, Economics, Philosophy, History, Literature, and Mathematics. The Course in Jurisprudence is designed for persons preparing for the legal profession, for a business career,

and for participation in public affairs. No one is graduated from this Course if his average standing for the Course is below nine.

IV. The General Science Course, leading to the degree of Bachelor of Science, is substantially the same as the Philosophical Course, with the substitution of additional Modern Language and Scientific Studies for Latin and Greek. Candidates for the degree of Bachelor of Science must present at least one year of German or French for admission and at least four courses of college work in German or French as requisites for graduation.

V. The Course in Biology, leading to the first degree in Biological Science, covers four years of work in Biology, Chemistry, Physics, Mathematics, and Literature. No one is admitted to the first degree in Biological Science if his average standing for the Course is below nine.

VI. The Course in Chemistry, leading to the first degree in Chemical Science, covers four years of work in Chemistry, Physics, Mathematics, Biology, and Literature. No one is admitted to the first degree in Chemical Science if his average standing for the Course is below nine.

The requirements in Modern Language are the same for the Course in Jurisprudence as for the Philosophical Course; and for the Course in Biology and for that in Chemistry they are the same as for the Course in General Science.

VII. The Course in Civil Engineering, leading to the first degree in Civil Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Technology, and Language. No one is admitted to the first degree in Civil Engineering if his average standing for the Course is below nine.

VIII. The Course in Electrical Engineering, leading to the first degree in Electrical Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Physics, Electro-technics, and Language. No one will be admitted to the first degree in Electrical Engineering if his average standing for the Course is below nine.

IX. The Course in Mechanical Engineering, leading to the first degree in Mechanical Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Physics, Electro-technics, Steam Engineering, Shop-work, and Language. No one will be admitted to the first degree in Mechanical Engineering if his average standing for the Course is below nine.

X. Advanced Courses in Arts, in Science, and in Engineering have been established, leading to the degrees respectively of Master of Arts, Master of Science, Master of Pedagogy, Civil Engineer, and Electrical Engineer.

The Master's degree is conferred only on condition that the candidate has completed a Course of Liberal study, approved by the Faculty, sufficient in amount to constitute a fifth year of college work, two thirds of which must be in one department. Particulars may be learned by addressing the President.

CURRICULA.

Roman numerals indicate the number of class-exercises required each week; when there is no designation, five is understood.

I. THE CLASSICAL COURSE.

Leading to the Degree of Bachelor of Arts.

FRESHMAN YEAR.

- | | |
|---|--|
| <p>I. TERM—Solid Geometry,
 Cicero de Senectute and Livy,
 { Odyssey,
 { Greek Prose Composition,</p> | <p>Rhetoric, I,
 Oratory, I.</p> |
| <p>II. TERM—Higher Algebra,
 Livy,
 { Lysias' Orations,
 { Greek Testament,</p> | <p>Rhetoric, I,
 Oratory, I.</p> |
| <p>III. TERM—Trigonometry,
 Velleius and Pliny,
 { Plato's Apology,
 { Greek Testament,</p> | <p>Rhetoric, I,
 Oratory, I.</p> |

SOPHOMORE YEAR.

- | | |
|---|---|
| <p>I. TERM—Rhetoric,
 Horace,</p> | <p>Astronomy, I,
 Oratory, I.</p> |
|---|---|

ELECTIVE STUDIES:

- | | |
|--|--|
| <p><i>German,</i>
 <i>French,</i>
 <i>Greek History,</i></p> | <p><i>American History, a,</i>
 <i>Chemistry,</i>
 <i>Surveying,</i></p> |
| <p><i>Analytical Geometry.</i></p> | |

II. TERM—English Literature,
Demosthenes,

Astronomy, I,
Oratory, I.

ELECTIVE STUDIES:

Roman History,
American History, b,
Latin, 6,
German,
French,

Logic,
Chemistry,
Differential Calculus,
Advanced Algebra,
Physiology.

III. TERM—Civics, or Economic History,

History of Art, I.

ELECTIVE STUDIES:

Public Address,
Argumentation,
Juvenal,
German,
French,

Anthropology,
Botany,
Chemistry,
Integral Calculus,
Elements of Law.

JUNIOR YEAR.

I. TERM—Psychology,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

Æschylus and Sophocles,
Latin, 8,
English, 6 or 7,
German,
Spanish,
History, Oriental,
Economics,
French,

Real Property,
Sociology,
Physiological Psychology,
Experimental Physiology.
Biology,
Embryology,
Chemistry,
Mechanics,

Geology.

II. TERM—Ethics, IV,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>Euripides,</i>	<i>Advanced Logic,</i>
<i>Latin Poets,</i>	<i>Advanced Composition,</i>
<i>English, 8,</i>	<i>Comparative Psychology,</i>
<i>German,</i>	<i>Zoölogy of Invertebrates,</i>
<i>French,</i>	<i>Animal Histology,</i>
<i>Spanish,</i>	<i>Human Anatomy, a,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>History, English, a,</i>	<i>Higher Analytics,</i>
<i>Municipal Sociology,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Physics,</i>
<i>Personal Property,</i>	<i>Municipal Government,</i>

III. TERM—Theism, III,	History of Education, I,
History of Philosophy, II,	Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Railroad Transportation,</i>
<i>Latin, 10,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Journalism,</i>	<i>Cryptogamic Botany,</i>
<i>German,</i>	<i>Bacteriology,</i>
<i>French,</i>	<i>Entomology,</i>
<i>Spanish,</i>	<i>Neurology,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Physics.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Greek, 15,</i>	<i>School Administration,</i>
<i>Greek Testament,</i>	<i>International Law,</i>
<i>Latin, 11,</i>	<i>Comparative Anatomy,</i>
<i>Anglo-Saxon,</i>	<i>Chemistry,</i>
<i>English, 4 or 9,</i>	<i>Geology,</i>
<i>German,</i>	<i>Geodetic Astronomy,</i>
<i>French,</i>	<i>Contracts,</i>
<i>Medieval History,</i>	<i>Advanced Ethics.</i>

II. TERM—Political Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Demosthenes de Corona,</i>	<i>Agency,</i>
<i>Greek Testament,</i>	<i>Philosophy of Mind,</i>
<i>Latin, 12,</i>	<i>History, 11,</i>
<i>Roman Life,</i>	<i>History of Europe, a,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Public Finance,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Psychology of Education,</i>	<i>Economic Geology,</i>
<i>Human Anatomy, b.</i>	

III. TERM—Literature, I,

Thesis.

ELECTIVE STUDIES:

<i>Plato, Phaedo,</i>	<i>Philosophy of Education,</i>
<i>Greek Testament,</i>	<i>History of Europe, b,</i>
<i>Latin, 13,</i>	<i>Private Corporations,</i>
<i>German,</i>	<i>Constitutional Law,</i>
<i>French,</i>	<i>Roman Law,</i>
<i>Shakspeare,</i>	<i>Partnership,</i>
<i>History of Philosophy,</i>	<i>Chemistry,</i>
<i>Forestry.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

II. THE PHILOSOPHICAL COURSE.

Leading to the Degree of Bachelor of Philosophy.

A. LATIN DIVISION.

FRESHMAN YEAR.

I. TERM—Solid Geometry, Rhetoric, I,
Cicero de Senectute and Livy, Oratory, I.
German or French,

II. TERM—Higher Algebra, Rhetoric, I,
Livy, Oratory, I.
German or French,

- III. TERM—Trigonometry, Rhetoric, I,
 Velleius and Pliny, Oratory, I.
German or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Astronomy, I,
 Horace, Oratory, I.

ELECTIVE STUDIES:

German, *American History, a,*
French, *Chemistry,*
Greek History, *Surveying,*
Analytical Geometry.

- II. TERM—English Literature, Oratory, I.
 Astronomy, I.

ELECTIVE STUDIES:

Roman History, *Physiology,*
American History, b, *Chemistry,*
Latin, 6, *Differential Calculus,*
German, *Advanced Algebra,*
French, *Logic.*

- III. TERM—Civics or Economic History. History of Art, I.

ELECTIVE STUDIES:

Argumentation, *Anthropology,*
Public Address, *Elementary Law,*
Juvenal, *Botany,*
German, *Chemistry,*
French, *Integral Calculus.*

JUNIOR YEAR.

- I. TERM—Psychology, Sanitary Science, I,
 Thesis.

ELECTIVE STUDIES:

Latin, 8, *Sociology,*
German, *Economics,*
French, *Physiological Psychology,*
Spanish, *Experimental Physiology,*
English, 6 or 7, *Biology,*
History, Oriental, *Embryology,*
Real Property. *Chemistry,*
Mechanics.

II. TERM—Ethics, V,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 9,</i>	<i>Advanced Logic,</i>
<i>English, 8,</i>	<i>Advanced Composition,</i>
<i>German,</i>	<i>Comparative Psychology,</i>
<i>French,</i>	<i>Zoölogy of Invertebrates,</i>
<i>Spanish,</i>	<i>Animal Histology,</i>
<i>English Bible,</i>	<i>Human Anatomy, a,</i>
<i>History, English,</i>	<i>Chemistry,</i>
<i>Municipal Sociology,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Higher Analytics,</i>
<i>Municipal Government,</i>	<i>Physics,</i>
<i>Personal Property.</i>	

III. TERM—Theism, III,

History of Education, I,

History of Philosophy, II,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 10,</i>	<i>Cryptogamic Botany,</i>
<i>Journalism,</i>	<i>Zoölogy of Vertebrates,</i>
<i>German,</i>	<i>Entomology,</i>
<i>French,</i>	<i>Bacteriology,</i>
<i>Spanish,</i>	<i>Neurology,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Railroad Transportation,</i>	<i>Physics.</i>

SENIOR YEAR.

I. TERM—Social Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 11,</i>	<i>School Administration,</i>
<i>German,</i>	<i>International Law,</i>
<i>French,</i>	<i>Contracts,</i>
<i>Anglo-Saxon,</i>	<i>Comparative Anatomy,</i>
<i>English, 4 or 9,</i>	<i>Chemistry,</i>
<i>Medieval History,</i>	<i>Geology,</i>
<i>Advanced Ethics,</i>	<i>Geodetic Astronomy.</i>

II. TERM—Political Ethics, I,

Thesis.

ELECTIVE STUDIES:

*Latin, 12,**Chaucer,**German,**French,**Philosophy of Mind,**History of Europe, a,**Psychology of Education,**Roman Private Life,**Comparative Politics,**Public Finance,**Chemistry,**Economic Geology,**Human Anatomy, b,**Agency.*

III. TERM—Literature, I,

Thesis.

ELECTIVE STUDIES:

*Latin, 13,**German,**French,**Shakspeare,**History of Philosophy,**History of Europe, b,**Comparative Politics,**Philosophy of Education,**Constitutional Law,**Roman Law,**Private Corporations,**Chemistry,**Forestry,**Partnership.*

Seniors may take any of the Electives of the Junior Year for corresponding terms.

 THE PHILOSOPHICAL COURSE.

B. GREEK DIVISION.

 FRESHMAN YEAR.

I. TERM—Solid Geometry,

Odyssey,

German or French,

Rhetoric, I,

Oratory, I.

II. TERM—Higher Algebra,

{ Lysias' Orations,

{ Greek Testament,

German or French,

Rhetoric, I,

Oratory, I.

- III. TERM—Trigonometry, Rhetoric, I,
 { Plato's Apology, Oratory, I.
 { Greek Testament,
 German or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Linear Perspective, I,
 Greek History, Oratory, I.

ELECTIVE STUDIES:

<i>American History, a,</i>	<i>Analytical Geometry,</i>
<i>German,</i>	<i>Chemistry,</i>
<i>French,</i>	<i>Surveying.</i>

- II. TERM—English Literature, Astronomy, I,
 Demosthenes, Oratory, I.

ELECTIVE STUDIES:

<i>German,</i>	<i>Logic,</i>
<i>French,</i>	<i>Physiology,</i>
<i>Roman History,</i>	<i>Chemistry,</i>
<i>American History, b,</i>	<i>Differential Calculus,</i>
<i>Advanced Algebra.</i>	

- III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

<i>Argumentation,</i>	<i>Elements of Law,</i>
<i>Public Address,</i>	<i>Botany,</i>
<i>German,</i>	<i>Anthropology,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Integral Calculus.</i>	

JUNIOR YEAR.

- I. TERM—Psychology. Sanitary Science, I,
 Thesis.

ELECTIVE STUDIES:

<i>Æschylus and Sophocles,</i>	<i>Sociology,</i>
<i>German,</i>	<i>Economics,</i>
<i>French,</i>	<i>Physiological Psychology,</i>
<i>Spanish,</i>	<i>Experimental Physiology,</i>
<i>English, 6 or 7,</i>	<i>Biology,</i>
<i>History, Oriental,</i>	<i>Embryology,</i>
<i>Real Property,</i>	<i>Chemistry,</i>
	<i>Mechanics.</i>

II. TERM—Ethics,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>Euripides,</i>	<i>Advanced Composition,</i>
<i>German,</i>	<i>Comparative Psychology,</i>
<i>French,</i>	<i>Zoölogy of Invertebrates,</i>
<i>Spanish,</i>	<i>Animal Histology,</i>
<i>English, 8,</i>	<i>Human Anatomy, a,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>History, English,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Physics,</i>
<i>Municipal Government,</i>	<i>Higher Analytics,</i>
<i>Advanced Logic,</i>	<i>Personal Property,</i>
	<i>Municipal Sociology,</i>

III. TERM—Theism, III,

History of Education, I,

History of Philosophy, II,

Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Journalism,</i>	<i>Entomology,</i>
<i>German,</i>	<i>Cryptogamic Botany,</i>
<i>French,</i>	<i>Bacteriology,</i>
<i>Spanish,</i>	<i>Neurology,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Railroad Transportation,</i>	<i>Physics.</i>

SENIOR YEAR.

I. TERM—Social Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>Greek, 15,</i>	<i>Advanced Ethics,</i>
<i>Greek Testament,</i>	<i>School Administration,</i>
<i>Anglo-Saxon,</i>	<i>International Law,</i>
<i>English, 4 or 9,</i>	<i>Comparative Anatomy,</i>
<i>German,</i>	<i>Chemistry,</i>
<i>French,</i>	<i>Geology,</i>
<i>Medieval History,</i>	<i>Contracts.</i>

II. TERM—Political Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>Demosthenes de Corona, .</i>	<i>Agency,</i>
<i>Greek Testament,</i>	<i>Psychology of Education,</i>
<i>Chaucer,</i>	<i>Roman Life,</i>
<i>German,</i>	<i>Comparative Politics,</i>
<i>French,</i>	<i>Public Finance,</i>
<i>Philosophy of Mind,</i>	<i>Chemistry,</i>
<i>History of Europe, a,</i>	<i>Economic Geology,</i>
<i>Human Anatomy, b.</i>	

III. TERM—Literature, I, Thesis.

ELECTIVE STUDIES:

<i>Plato, Phaedo,</i>	<i>Partnership,</i>
<i>Greek Testament,</i>	<i>History of Europe, b,</i>
<i>German,</i>	<i>Constitutional Law,</i>
<i>French,</i>	<i>Roman Law,</i>
<i>Shakspeare,</i>	<i>Private Corporations,</i>
<i>History of Philosophy,</i>	<i>Chemistry,</i>
<i>Philosophy of Education,</i>	<i>Forestry.</i>

Seniors may take any of the Electives of the Junior Year for corresponding terms.

III. THE COURSE IN JURISPRUDENCE.

Leading to the Degree of Bachelor of Arts.

FRESHMAN YEAR.

- I. TERM—Solid Geometry, Rhetoric, I,
 Cicero de Senectute and Livy, Oratory, I.
 { Odyssey,
 { Greek Prose Composition,
 or German,
 or French,
- II. TERM—Higher Algebra, Rhetoric, I,
 Livy, Oratory, I.
 { Lysias' Orations,
 { Greek Testament,
 or German, or French,
- III. TERM—Trigonometry, Rhetoric, I,
 Velleius and Pliny, Oratory, I.
 { Plato's Apology,
 { Greek Testament,
 or German,
 or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Political Science, I,
 Horace, Oratory, I.

ELECTIVE STUDIES:

- Greek History,* *French,*
American History, a, *Surveying,*
German, *Chemistry.*
- II. TERM—English Literature, Political Science, I,
 Logic, Oratory, I.

ELECTIVE STUDIES:

<i>Demosthenes,</i>	<i>American History, b,</i>
<i>Quintilian,</i>	<i>German,</i>
<i>Roman History,</i>	<i>French.</i>

- III. TERM—Elements of Law, Political Science, I.
American Constitutional Law,

ELECTIVE STUDIES:

<i>Juvenal,</i>	<i>American Literature,</i>
<i>German,</i>	<i>Argumentation,</i>
<i>French,</i>	<i>Public Address,</i>
<i>Economic History.</i>	

JUNIOR YEAR.

- I. TERM—Psychology, Blackstone, I,
Economics, Thesis.

ELECTIVE STUDIES:

<i>Real Property, Blackstone B. II,</i>	<i>Latin, 8,</i>
<i>Constitutional Limitations,</i>	<i>Greek Tragedy,</i>
<i>English History,</i>	<i>English Literature,</i>
<i>Sociology,</i>	<i>Modern Language.</i>

- II. TERM—Ethics, Blackstone, I,
Money and Banking, Thesis.

ELECTIVE STUDIES:

<i>Personal Property,</i>	<i>English Bible,</i>
<i>Municipal Government,</i>	<i>Greek,</i>
<i>History,</i>	<i>Latin, 9,</i>
<i>Logic, Course 2,</i>	<i>English Literature,</i>
<i>Advanced Composition,</i>	<i>Modern Language.</i>

- III. TERM—Theism, Blackstone, I,
Private Corporations, Thesis.

ELECTIVE STUDIES:

<i>Bills and Notes,</i>	<i>Greek,</i>
<i>English Bible,</i>	<i>Latin, 10,</i>
<i>History,</i>	<i>Modern Language.</i>

SENIOR YEAR.

- I. TERM—International Law, Social Ethics, I,
Thesis.

ELECTIVE STUDIES:

<i>Contracts,</i>	<i>English Literature,</i>
<i>Medieval History,</i>	<i>Latin, 11,</i>
<i>Anglo-Saxon,</i>	<i>Modern Language,</i>
<i>Advanced Ethics.</i>	

- II. TERM—Comparative Politics, Political Ethics, I,
Thesis.

ELECTIVE STUDIES:

<i>Agency,</i>	<i>Demosthenes de Corona,</i>
<i>Public Finance,</i>	<i>Latin, 12,</i>
<i>Modern Europe, a,</i>	<i>Chaucer,</i>
<i>Philosophy of Mind,</i>	<i>Modern Language.</i>

- III. TERM—Roman Law, Literature, I,
Thesis.

ELECTIVE STUDIES:

<i>Partnership,</i>	<i>Shakspeare,</i>
<i>Railroad Transportation,</i>	<i>Plato's Phaedo,</i>
<i>Modern Europe, b,</i>	<i>Latin, 13,</i>
<i>History, 9,</i>	<i>Modern Language,</i>
<i>History of Philosophy.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

IV. THE GENERAL SCIENCE COURSE.

Leading to the Degree of Bachelor of Science.

FRESHMAN YEAR.

- | | |
|-------------------------|--------------|
| I. TERM—Higher Algebra, | Rhetoric, I, |
| Latin, | Oratory, I. |
| German, 2, or French, | |

- II. TERM—Trigonometry, Rhetoric, I,
 Latin, Oratory, I.
German, 2, or French,
- III. TERM—Analytical Geometry, Rhetoric, I,
German, 2, or French, Oratory, I.
 Latin,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Astronomy, I,
 Oratory, I.

ELECTIVE STUDIES:

<i>Chemistry,</i>	<i>Greek History,</i>
<i>Horace,</i>	<i>American History, a,</i>
<i>German,</i>	<i>Surveying,</i>
<i>French.</i>	

- II. TERM—English Literature, Astronomy, I,
 Oratory, I.

ELECTIVE STUDIES:

<i>German,</i>	<i>Logic,</i>
<i>French,</i>	<i>Physiology,</i>
<i>Roman History,</i>	<i>Chemistry,</i>
<i>American History, b,</i>	<i>Differential Calculus,</i>
<i>Advanced Algebra.</i>	

- III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

<i>Public Address,</i>	<i>Elements of Law,</i>
<i>Argumentation,</i>	<i>Anthropology,</i>
<i>Juvenal,</i>	<i>Botany,</i>
<i>German,</i>	<i>Integral Calculus,</i>
<i>French,</i>	<i>Chemistry.</i>

JUNIOR YEAR.**I. TERM—Psychology,****Sanitary Science, I,****Thesis.****ELECTIVE STUDIES:**

*English, 6 or 7,
German,
French,
Spanish,
History, Oriental,
Sociology,
Real Property,*

*Economics,
Physiological Psychology,
Experimental Physiology,
Biology,
Embryology,
Chemistry,
Mechanics.*

II. TERM—Ethics,**Sanitary Science, I,****Thesis.****ELECTIVE STUDIES:**

*English, 8,
German,
French,
Spanish,
English Bible,
History, English,
Money and Banking,
Municipal Government,
Municipal Sociology,
Physics.*

*Personal Property,
Advanced Composition,
Comparative Psychology,
Zoölogy of Invertebrates,
Animal Histology,
Human Anatomy, a,
Chemistry,
Mathematics, 9,
Higher Analytics,*

III. TERM—Theism, III,**History of Education, I,****History of Philosophy, II,****Thesis.****ELECTIVE STUDIES:**

*Greek, 8,
Journalism,
German,
French,
Spanish,
English Bible,
Railroad Transportation,
Bills and Notes*

*Cryptogamic Botany,
Zoölogy of Vertebrates,
Bacteriology,
Entomology,
Neurology,
Astronomy,
Physics,
Chemistry.*

SENIOR YEAR.

I. TERM—Social Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>Anglo-Saxon,</i>	<i>Advanced Ethics,</i>
<i>English, 4 or 9,</i>	<i>International Law,</i>
<i>German,</i>	<i>Comparative Anatomy,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Medieval History,</i>	<i>Geology,</i>
<i>Contracts,</i>	<i>Geodetic Astronomy,</i>
<i>School Administration.</i>	

II. TERM—Political Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>German,</i>	<i>Psychology of Education,</i>
<i>French,</i>	<i>Roman Life,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>Philosophy of Mind,</i>	<i>Public Finance,</i>
<i>Modern Europe, a,</i>	<i>Chemistry,</i>
<i>History, 11,</i>	<i>Economic Geology,</i>

ELECTIVE STUDIES:

<i>German,</i>	<i>Partnership,</i>
<i>French,</i>	<i>Constitutional Law,</i>
<i>Shakspeare,</i>	<i>Roman Law,</i>
<i>History of Philosophy,</i>	<i>Private Corporations,</i>
<i>Modern Europe, b,</i>	<i>Chemistry,</i>
<i>Philosophy of Education,</i>	<i>Forestry.</i>

Seniors may take any of the Electives of the Junior Year for corresponding terms.

V. THE COURSE IN BIOLOGY.

Leading to the First Degree in Biological Science.

FRESHMAN YEAR.

I. TERM—Algebra,	Rhetoric, I,
General Chemistry,	Oratory, I.
Latin, or German, 2,	
or French,	

- II. TERM—Trigonometry, Rhetoric, I,
 General Chemistry, Oratory, I.
Latin or German, 2,
or French,
- III. TERM—Analytical Geometry, Rhetoric, I,
 Qualitative Chemistry, Oratory, I.
Latin or German, 2, or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Drawing, I,
 Biology, Scientific German, II.
Quantitative Chemistry,
- II. TERM—Invertebrate Zoölogy, Drawing, I,
 Physiology, Scientific German, II.

ELECTIVE STUDIES:

- History,* *English Literature,*
Modern Language, *Chemistry,*
Differential Calculus.

- III. TERM—Vertebrate Zoölogy, Drawing, I,
 Botany, Scientific German, II.

ELECTIVE STUDIES:

- Chemistry,* *Civics,*
Anthropology, *English Literature,*
Integral Calculus, *Modern Language.*

JUNIOR YEAR.

- I. TERM—Psychology, German Biology, I,
 Mechanics, Thesis.
Physiological Psychology or
Experimental Physiology, or
Toxicology,
- II. TERM—Comparative Psychology, German Biology, I,
 Physics, Thesis.

ELECTIVE STUDIES:

History,
Ethics,
Metallurgy,

Literature,
Modern Language,
Human Anatomy, a.

III. TERM—Entomology,
Physics,

German Biology, I,
Thesis.

ELECTIVE STUDIES:

Astronomy,
Theism,

English Literature,
Modern Language,

Neurology.

SENIOR YEAR.

I. TERM—Comparative Anatomy,
Embryology,

Social Ethics, I,
Thesis.

ELECTIVE STUDIES:

Geology,
Economics,

Modern Language,
Chemistry,

History.

II. TERM—Histology,

Thesis.

Political Ethics, I,

ELECTIVE STUDIES:

Human Anatomy, b,
Economic Geology,
Money and Banking,

History,
English Bible,
Modern Language,

Chemistry.

III. TERM—Neurology,
Bacteriology,

Forestry, I,
Thesis.

ELECTIVE STUDIES:

Chemistry,
Railroad Transportation,
Forestry,

Literature,
English Bible,
Modern Language,

History.

Seniors may take any of the Electives of the Junior Year for corresponding terms.

VI. THE COURSE IN CHEMICAL ENGINEERING.

*Leading to the First Degree in Chemical Engineering.***FRESHMAN YEAR.**

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| I. TERM—Chemistry, | Rhetoric, I, |
| Higher Algebra, | Oratory, I. |
| <i>Latin, German, 2, or French,</i> | |
| II. TERM—Chemistry, | Rhetoric, I, |
| Trigonometry, | Oratory, I. |
| <i>Latin, German, 2, or French,</i> | |
| III. TERM—Chemistry, | Rhetoric, I, |
| Analytical Geometry, | Oratory, I. |
| <i>Latin, German, 2, or French,</i> | |

SOPHOMORE YEAR.

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| I. TERM—Quantitative Chemistry, | Drawing, I, |
| Mechanics, | Shopwork, IV. |
| Rhetoric, | |
| II. TERM—Quantitative Chemistry, | Drawing, I, |
| Physics, | Shopwork, IV. |
| Differential Calculus, | |
| III. TERM—Quantitative Chemistry, | Drawing, I, |
| Physics, | Shopwork, IV. |
| Integral Calculus, | |

JUNIOR YEAR.

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| I. TERM—Organic Chemistry, | German Chemistry, I, |
| Electrical Measurements, | Thesis. |
| <i>Toxicology and Food Analysis,</i> | |
| II. TERM—Organic Chemistry, | German Chemistry, I, |
| Thermo-Dynamics, | Thesis. |
| Metallurgy and Glass-blowing. | |

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| III. TERM—Organic Chemistry,
Spectrum Analysis,
<i>Agricultural Chemistry</i> , or
<i>Boilers and Engines</i> , | German Chemistry, I,
Thesis. |
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SENIOR YEAR.

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| I. TERM—Physical Chemistry,
Chemical Preparations,
<i>Geology</i> , | Social Ethics, I,
Thesis. |
| II. TERM—Physical Chemistry,
Chemical Preparations,
<i>Direct Current Machinery</i> , or
<i>Hydraulic Motors</i> , or
<i>Economic Geology</i> , | Political Ethics, I,
Thesis. |
| III. TERM—Physical Chemistry,
Chemical Preparations,
<i>Alternating Current Machinery</i> ,
or <i>Water Supply and Sani-
tary Engineering</i> , | Contracts, I,
Thesis. |

Seniors may take any of the Electives of the Junior Year for corresponding terms.

VII. THE COURSE IN CIVIL ENGINEERING.

Leading to the First Degree in Civil Engineering.

FRESHMAN YEAR.

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| I. TERM—Higher Algebra,
Drawing,
<i>German</i> , 2, or <i>French</i> , | Rhetoric, I,
Oratory, I. |
| II. TERM—Trigonometry,
Drawing,
<i>German</i> , 2, or <i>French</i> , | Rhetoric, I,
Oratory, I. |

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| III. TERM—Analytical Geometry,
Drawing,
<i>German, 2, or French,</i> | Rhetoric, I,
Oratory, I. |
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SOPHOMORE YEAR.

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| I. TERM—Rhetoric,
Surveying,
Chemistry, | Geodesy, I,
Shopwork, IV. |
| II. TERM—Differential Calculus,
Descriptive Geometry,
Chemistry, | Geodesy, I,
Shopwork, IV. |
| III. TERM—Integral Calculus,
Railroad Surveying,
Chemistry, | Geodesy, I,
Shopwork, IV. |

JUNIOR YEAR.

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| I. TERM—Mechanics,
Strength of Materials,
Roads and Pavements, | Architectural Design, I,
Thesis. |
| II. TERM—Physics,
Masonry,
Metallurgy, | Architectural Design, I,
Thesis. |
| III. TERM—Physics,
Boilers and Engines,
{ Water Supply,
Sanitary Engineering, | Forestry,
Thesis. |

SENIOR YEAR.

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|--|---------------------------------|
| I. TERM—Bridges and Buildings,
<i>Geodetic Astronomy or
Geology or
Advanced Mechanics or
Electrical Measurements,</i> | Social Ethics, I,
Thesis. |
| II. TERM—Hydraulic Motors,
Bridges and Buildings,
<i>Economic Geology or
Advanced Physics or
Direct Current Machinery,</i> | Political Ethics, I,
Thesis. |

- III. TERM—Bridges and Buildings,
 { Mine Surveying, Contracts and Specifica-
 { City Surveying, tions, I,
 Railroad Transportation or Thesis.
 Advanced Physics or
 Alternating Current Machinery
 or Forestry,
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VIII. THE COURSE IN ELECTRICAL ENGINEERING

Leading to the First Degree in Electrical Engineering.

FRESHMAN YEAR.

- I. TERM—Higher Algebra, Rhetoric, I,
 Drawing, Oratory, I.
 German, 2, or French,
- II. TERM—Trigonometry, Rhetoric, I,
 Drawing, Oratory, I.
 German, 2, or French,
- III. TERM—Analytical Geometry, Rhetoric, I,
 Drawing, Oratory, I.
 German, 2, or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Shopwork, IV,
 Mechanics, Astronomy, I.
 Chemistry,
- II. TERM—Differential Calculus, Shopwork, IV,
 Physics, Astronomy, I.
 Chemistry,
- III. TERM—Integral Calculus, Shopwork, IV,
 Physics, History of Art, I.
 Chemistry,

JUNIOR YEAR.

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| I. TERM—Electrical Measurements,
Strength of Materials,
Descriptive Geometry, or
Theoretical Mechanics, | Machine Design
and Tools, I,
Thesis. |
| II. TERM—Direct Current Machinery,
Advanced Physics,
Metallurgy, | Machine Design
and Tools, I,
Thesis. |
| III. TERM—Alternating Current Machinery,
Advanced Physics,
Boilers and Engines, | Machine Design
and Tools, I,
Thesis. |

SENIOR YEAR.

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| I. TERM—Design of Electrical Machinery,
Electrical Generating Stations
and Transmission,
Graphical Analysis of Structures, | Social Ethics, I,
Thesis. |
| II. TERM—Design of Electrical Machinery,
Telegraphs, Telephones, Signal-
ing Apparatus,
Hydraulic Motors, | Political Ethics, I,
Thesis. |
| III. TERM—Electric Lighting,
Electric Railways,
Water Supply and Sanitary
Engineering, | Contracts and Specifica-
tions, I,
Thesis. |
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IX. THE COURSE IN MECHANICAL ENGINEERING.

Leading to the First Degree in Mechanical Engineering.

FRESHMAN YEAR.

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| I. TERM—Advanced Algebra,
Drawing,
German, 2, or French, | Rhetoric, I,
Oratory, I,
Shopwork, II. |
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| II. TERM—Trigonometry,
Drawing,
<i>German, 2, or French,</i> | Rhetoric, I,
Oratory, I,
Shopwork, II. |
| III. TERM—Analytical Geometry,
Drawing,
<i>German, 2, or French,</i> | Rhetoric, I,
Oratory, I,
Shopwork, II. |

SOPHOMORE YEAR.

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|---|-------------------------------------|
| I. TERM—Rhetoric,
Mechanics,
Chemistry, | Shopwork, IV,
Astronomy, I. |
| II. TERM—Differential Calculus,
Physics,
Chemistry, | Shopwork, IV,
Astronomy, I. |
| III. TERM—Integral Calculus,
Physics,
Chemistry, | Shopwork, IV,
History of Art, I. |

JUNIOR YEAR.

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| I. TERM—Electrical Measurements,
Descriptive Geometry,
Strength of Materials, | Shopwork, IV,
Machine Design, I. |
| II. TERM—Direct Current Machinery,
Thermo-Dynamics,
Metallurgy, | Shopwork, IV,
Machine Design, I. |
| III. TERM—Alternating Current
Machinery,
Thermo-Dynamics,
Boilers and Engines, | Shopwork, IV,
Machine Design, I. |

SENIOR YEAR.

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| I. TERM—Steam Engineering (49),
Design of Electrical Machinery,
Bridges and Buildings, | Social Ethics, I,
Shopwork, IV. |
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- II. TERM—Steam Engineering (50), Political Ethics, I,
Design of Electrical Machinery, Shopwork, IV.
Hydraulic Motors,
- III. TERM—Steam Engineering (51), Contracts, I,
Electric Lighting, Shopwork, IV.
Water Supply and Sanitary
Engineering,

DEPARTMENTS OF INSTRUCTION

The method of instruction in the College is varied according to the nature of the subject. Each professor has his individual mode of imparting knowledge, and this, in the result, is advantageous to the learner. In general, the aim is to discuss each branch as the subject-matter requires, yet all are presented practically, comparatively, and historically, with the view of leading the student to the apprehension of the subject as an organic whole and in its relations. The range of the instruction can be gathered from the following account of the different departments.

I. DEPARTMENT OF PHILOSOPHY.

JOHN HOWARD HARRIS, LL. D.,
PROFESSOR OF PSYCHOLOGY AND ETHICS.

CALVIN AURAND HARE, A. M.,
PROFESSOR OF CHRISTIAN EVIDENCES AND LOGIC.

THOMAS ALPHEUS EDWARDS, A. M.,
PROFESSOR OF PEDAGOGY.

The studies in this department embrace Psychology, Philosophy, Ethics, Theism, and Pedagogy.

1. **Psychology, Descriptive and Explanatory.** Required Course. Juniors. First term, five hours.

2. **Physiological and Experimental Psychology.** Elective to Seniors and Juniors. First term, five hours.—PROFESSOR DAVIS.

3. **Lotze, Grundzüge der Psychologie.** Seniors and Juniors. Minor. Two hours.

4. **Philosophy of Mind.** Elective to Seniors and Juniors. Second term, five hours.

5. **Logic, Deductive and Inductive.** Second term, five hours.
—PROFESSOR HARE.

6. **Scientific Method, with Exercises in Analysis.** Seniors and Juniors. Second term, five hours.—PROFESSOR HARE.

7. **Argumentation.** Baker's *Principles of Argumentation*. Briefs, forensics, and oral discussion. Third term. (Rhetoric, 3.)—PROFESSOR PHILLIPS.

8. **History of Philosophy.** Lectures. Required of Juniors. Third term, two hours.

9. **Greek Philosophy** (Greek, 10). Elective to Seniors and Juniors.—PROFESSOR HAMBLIN.

10. **Roman Philosophy** (Latin, 16). Elective to Seniors and Juniors.—PROFESSOR ROCKWOOD.

11. **Metaphysics.** Study of Kant. Third term, five hours.

12. **Ethics.** Required of Juniors. Second term, five hours.

13. **Social Ethics.** Lectures. Required of Seniors. First term, one hour.

14. **Political Ethics.** Lectures. Required of Seniors. Second term, one hour.

15. **Ethics of Plato and Aristotle.** Study of the Republic and Nicomachean Ethics, with collateral readings and thesis. First term, five hours.

16. **Philosophy of Religion.** Required of Juniors. Third term, three hours.

17. **Evidences of Christianity.** Elective to Seniors. Second term, five hours.—PROFESSOR HARE.

EDUCATION.

18. **History of Education.** A general sketch of educational Theory and Practice in Ancient and Modern times. Lectures. Required of Juniors. Third term, one hour.—PROFESSOR EDWARDS.

19. **Psychology of Education.** Based on Harris' *Psychologic Foundations of Education*. Elective to Seniors and Juniors. Third term, five hours.—PROFESSOR EDWARDS.

20. **Comparative and Child Psychology.** Elective to Seniors and Juniors. Second term, five hours.—PROFESSOR DAVIS.

21. Philosophy of Education. Based on Horne's Philosophy of Education. Elective to Seniors and Juniors. Second term, five hours.—PROFESSOR EDWARDS.

22. School Administration. High School organization, function and management; discussion of methods; survey of College Entrance Requirements. First term, five hours.—PROFESSOR EDWARDS.

23. Teachers' Course in American History. Methods of teaching History with special reference to the work of secondary schools. Second term, two hours.—PROFESSOR COLESTOCK.

24. Teachers' Course in Greek. The Anabasis and Iliad are used as text. The preparatory work is reviewed, and suggestions made regarding methods of teachings. Some informal lectures are also given regarding the first year's work in Greek. First term, five hours. Seniors and Juniors.—PROFESSOR HAMBLIN.

25. Teachers' Course in Latin. Special topics in grammar, with practical exercises in Cæsar, Cicero, Vergil. Third term, five hours. Seniors and Juniors.—PROFESSOR ROCKWOOD.

26. Teachers' Course in English. Designed to familiarize the student with the authors required for entrance to college.—PROFESSOR PERRINE.

27. Teachers' Course in Mathematics. Mathematics as developed in history and as used in education. (a) Arithmetic: Its culture value, utility, present status in the schools: reforms in arithmetical teaching. (b) Algebra: Its growth during the last three centuries, typical parts (ethical value). (c) Geometry: Its basis, historical position, methods, recent geometry.—PROFESSOR BARTOL.

CERTIFICATES.

The courses in education and methods of teaching, including Child Psychology, the History, the Psychology, and the Philosophy of Education, are helpful to those intending to teach. Students who take not less than eight of these courses will be entitled to a certificate for the work done in addition to the diploma of the Course in which they graduate.

REGISTER OF TEACHERS.

In order to aid Boards of Control in securing suitable teachers, there is kept a registry of graduates of Bucknell University who

may wish to engage in teaching. Alumni and friends of the College will render a service if they will inform the President of vacancies.

II. DEPARTMENT OF LAW.

HAROLD MURRAY MCCLURE, A. M.,
PRESIDENT JUDGE OF THE SEVENTEENTH JUDICIAL DISTRICT,
LECTURER ON CONTRACTS AND PARTNERSHIPS.

ALBERT WILLIAM JOHNSON, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON REAL AND PERSONAL PROPERTY.

CLOYD NILLIS STEININGER, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON BILLS AND AGENCY.

The Bucknell College of Liberal Arts offers in its courses for the degrees in Arts and Science a number of subjects specially bearing upon the study of law. Students prepared for college and having taken one year's work in liberal studies will be admitted to the studies in Law. The instruction is by text-book, lecture, and study of cases. The texts of "Leading Cases" have been placed in the library for the use of students. A certificate for the work done is given by the department, in addition to the Diploma of the College. But this certificate is not given for any legal subject in which the student's standing is below nine; nor to any student whose general average is below nine. Opportunity is given for the *Review* of the *Latin*, *History* and *Literature* required in the Preliminary Examination for registration as students of Law in Pennsylvania.

1. **Elementary Law.** Robinson's Elementary Law. Third term. Sophomore year.—PROFESSOR COLESTOCK.

2. **Blackstone's Commentaries.** B. I, III, IV. One hour, Junior year, three terms.—PROFESSOR COLESTOCK.

3. **Real Property.** Blackstone, B. II, and Select Cases, Lectures. First term, Junior year.—MR. JOHNSON.

4. **Personal Property.** Text-book, Select Cases, Lectures. Second term, Junior year.—MR. JOHNSON.

5. **Contracts.** Text-book, Select Cases, Lectures. First term, Senior year.—JUDGE MCCLURE.

6. **Bills and Notes.** Text-book, Select Cases, Lectures. Third term, Junior year.—MR. STEININGER.

7. **Agency.** Text-book, Select Cases, Lectures. Third term, Senior year.—MR. STEININGER.

8. **Partnership.** Text-book, Leading Cases, Lectures. Second term, Senior year.—JUDGE MCCLURE.

9. **Principles of International Law.** Fall term, Seniors and Juniors.—PROFESSOR HEIM.

10. **Roman Law.** Third term, Seniors and Juniors.—PROFESSOR ROCKWOOD.

11. **American Civics.** A study of the frame of Federal and State Government.—PROFESSOR COLESTOCK.

12. **American Constitutional Law.** Third term, Seniors and Juniors.—PROFESSOR HAMBLIN.

13. **Constitutional Limitations.** Cooley's Constitutional Limitations and cases.—PROFESSOR HEIM.

14. **Comparative Constitutional Law.** Second term, Seniors and Juniors. A comparison of the Constitutions of England, France, Germany, Switzerland, and the United States.—PROFESSOR HEIM.

15. **Moot courts** are held in which an attorney-at-law and a student sit as judges, and students, deputed to represent the respective sides, present their arguments. The presiding student writes the opinion of the court.

III. DEPARTMENT OF ECONOMICAL AND POLITICAL SCIENCE.

EPHRAIM M. HEIM, PH. D., PROFESSOR.

1. **Economics, I.** General course, devoted chiefly to problems of Production and Distribution.

2. **Economics, II.** Money and Banking. Prerequisite, Course I.

3. **Economics, III.** Public Finance. Financial Administration, Taxation and Public Debts. Alternating with Course II. Prerequisite, Course I.

4. **Corporate Finance and Commercial Law.** Organization and Management of Corporations. Corporation Finance. Form and Nature of Securities and Commercial Paper. Funding Operations,

Accounting and Auditing. Nature and Operations of Special Groups of Corporations, such as Public Service Companies, Financial Institutions, Insurance, etc.

5. Transportation and Commerce. Development of Foreign and Inland Commerce and Transportation. Organization and Methods of Railway Transportation. Theory of Rates, and Methods of State Control. Ocean Transportation, Shipping, and Navigation Acts. Commercial Geography.

6. Industrial History of United States. Development of Business Organization. Evolution of Types of Industry. Changes in Land Tenure; in the Distribution and Marketing of Products; in Forms of Exchange; in Insurance; in Organization of Labor Force; in Legislative Policy. Race Elements in American Industry.

7. Economics. Two hours a week. One of the following subjects will be studied: (1) English Economic History; (2) Socialism; (3) Labor Legislation.

8. American Civics. A study of the American frame of Federal and State Government.—PROFESSOR COLESTOCK.

9. American Constitutional Law. Cooley's Elements of Constitutional Law. A study of the law of the Federal Constitution.—PROFESSOR HAMBLIN.

10. Constitutional Limitations. The Constitutional Law of the American Commonwealth. The sphere of Civil Rights in relation of the exercise of governmental power through the criminal law, the police power, the taxing power, and the power of eminent domain.

11. Comparative Politics. A comparative study of the Constitutions of England, France, Germany, Switzerland, and the United States.

12. Municipal Government. Organization of City Government. Problems of Administration, Municipal Functions. Relation to the State. Second term; five hours. Seniors and Juniors.

13. International Law. First term, five hours. Seniors and Juniors.

14. Political Parties and Party Government. Origin and Growth of Party Government in the United States. Basis of Party Division. Rise and Decline of American Parties. Organization and Machinery of Party Government. European Parties. Lectures, one

hour a week, throughout the year. Required in Jurisprudence Course, elective to Sophomores in other Courses.

15. Political Science. Minor Courses, two hours. One of the following will be given: (1) Elements of Political Science; (2) Administrative Law.

16. American Diplomacy. Minor Course, two hours.

IV. DEPARTMENT OF SOCIOLOGY.

WILLIAM EMMET MARTIN, L. H. D., PROFESSOR.

1. Anthropology, Descriptive and Physical. Elective to Sophomores. Third term, five hours.

2. Sociology, Principles and Theory. Elective to Seniors and Juniors. First term, five hours.

3. Charities and Reform. Seniors and Juniors. Second term, one hour. Prerequisite Course 2.

4. Municipal Sociology. Seniors and Juniors. Second term, five hours.

5. History of Art. Lectures. Sophomores. Third term, one hour.

V. DEPARTMENT OF HISTORY.

HENRY THOMAS COLESTOCK, PH. D., PROFESSOR.

History is approached as the gradually unfolding life-story of the race.

1. Oriental History. A survey of the civilizations along the Nile and the Euphrates, including Egypt, Babylonia, Assyria, Phœnicia, and Persia, constituting an introduction to biblical and classical times. First term, five hours.

2. Hebrew History and Literature. Second term, five hours.—PROFESSOR PHILLIPS.

3. New Testament History and Literature. Third term, five hours.—PROFESSOR PHILLIPS.

4. Greek Political and Constitutional History. First term, five hours.—PROFESSOR HAMBLIN.

5. Roman History. Second term, five hours.—PROFESSOR ROCKWOOD.

6. Roman Private Life. Second term, five hours.—PROFESSOR BALLENTINE.

7. Medieval Europe. General survey of Western Europe, from the fourth to the thirteenth century, with especial attention to the institutional life of the people and the progress of civilization. First term, five hours.

8. Modern Europe to 1789, a. From the thirteenth century to the opening of the French Revolution. Considers especially the Renaissance, the Protestant Reformation, and conditions combining to produce the French Revolution. Second term, five hours.

9. Modern Europe since 1789, b. The French Revolution, the Napoleonic era, Unification in Germany and Italy. Progress in civilization, and in social and industrial conditions. Third term, five hours.

10. History of England, a. Political and industrial development of the English people from the earliest times. Second term, five hours.

11. Constitutional History of England, b. With especial reference to the growth and development of the present form of constitutional government in England. Second term, five hours. Alternates with course 10.

12. American Colonial History, a. European background of American colonization. Political, industrial, and constitutional conditions in the English colonies. Causes and results of the Revolutionary War.

13. American Constitutional History, b. Origin of the Federal Constitution. Growth of nationality. Conflict between nationality and state sovereignty. Issues involving the interpretation of the Constitution.

14. Industrial History of United States. Development of Business Organization. Evolution of Types of Industry. Changes in Land Tenure; in a Distribution and Marketing of Products; in Forms of Exchange; in Insurance; in Organization of Labor Force; in Legislative Policy. Race Elements in American Industry.—PROFESSOR HEIM.

15. Teachers' Course in American History. General survey of American history, designed to meet the needs of those who expect to teach history in secondary schools. Minor course.

16. **The Far East.** Survey of present conditions, social and constitutional, in Japan and China. Minor course.

17. **Historical Biography.** Detailed study of one or more important historical characters. Minor course.

18. **Present Conditions in Russia.** Minor Course.

VI. THE GREEK LANGUAGE AND LITERATURE.

THOMAS FRANKLIN HAMBLIN, A. M., PROFESSOR.

There are four terms of required work in Greek in the Classical Course, and five in the Greek Philosophical Course; while Greek may be taken as an elective during the entire Junior and Senior years. Besides the Elective courses a number of Minor Courses are offered. In the Elective courses a year of poetry alternates with a year of prose. A course of New Testament Greek, designed especially for candidates for the ministry and extending through the Senior year, is given by Professor Phillips.

1. **Homer.** *Odyssey*, Books 5-8. Review of verb forms and syntax of verbs. Epic forms and styles. Word lists. Metre. First term, Freshman year.

2. **Lysias.** Six orations. Inflection and syntax of nouns. Prose composition. Attic oratory. Translation at sight and hearing. Second term, Freshman year.

3. **Plato.** *Apology* and selections. Special topics in Greek Syntax. Philosophy and influence of Socrates. The Sophists. Extracts from the *Memorabilia* at sight. Third term, Freshman year.

4. **Greek Political and Constitutional History.** Bury's *History of Greece* is used as a text-book. The class is also required to do collateral reading on important epochs. First term, Sophomore year.

5. **Demosthenes.** *Olynthiacs* and *Philippics*. History and Politics of the Macedonian period. Style of Demosthenes. Second term, Sophomore year.

6. **Æschylus and Sophocles.** *Prometheus Bound* and *Œdipus Tyrannus*. The drama, theatre, and metres. First term, Seniors and Juniors, in alternate years.

7. **Euripides and Aristophanes.** *Medea* and *The Clouds*. Greek Comedy. Religious influence of the poets. Influence of the

Classical on the Modern Drama. Second term, Seniors and Juniors, in alternate years.

8. Greek Literature in English. A course especially designed for students in the Philosophical and Scientific Courses, that they may become acquainted with some of the Greek masterpieces. The best translations will be studied and explained, and informal lectures will be given on various phases of Greek Literature. Third term, Senior and Junior years.

9. Demosthenes. *De Corona*. The oratory of Demosthenes, from a literary and political point of view. Æschines against Ctesiphon at sight. Second term, Seniors and Juniors, alternating with 6.

10. Plato. The *Phaedo*. Greek Philosophy. The influence of Plato. Third term, Seniors and Juniors; alternating with 7.

11. New Testament Greek. The Gospel according to Luke. Hellenistic Greek. Second and third terms, Freshman year; one hour a week.

12-14. New Testament Greek. Translation of the synoptic Gospels; interpretation; Burton's *Moods and Tenses*; characteristics of Hellenistic Greek. Designed for students desiring a linguistic and historical foundation for the interpretation of the New Testament. Three terms. Elective to Seniors.—PROFESSOR PHILLIPS.

15. Teachers' Course in Greek. The *Anabasis* and *Iliad* are used as text-books. Thus the Preparatory work may be reviewed, and suggestions received regarding the methods of teaching. Some informal lectures are also given regarding the first year's work in Greek. First term, Seniors and Juniors.

16. Xenophon. The *Symposium* and *Œconomicus*. Sophomores and Freshman. Winter terms in alternate years, one hour.

17. Homer and Lucian. Selections from each in alternate years. Sophomores and Freshmen. Third term, one hour.

18. Xenophon and Æschines. The *Memorabilia* and the oration against Ctesiphon, in alternate years. Seniors and Juniors, first term, one hour.

19. Sophocles and the Lyric Poets. *Antigone* and selections from the Lyric Poets in alternate years. Seniors and Juniors, second term, one hour.

VII. THE LATIN LANGUAGE AND LITERATURE.

FRANK ERNEST ROCKWOOD, LL. D., PROFESSOR.

FLOYD GEORGE BALLENTINE, PH. D., ASSISTANT PROFESSOR.

There are four terms of required work in Latin and eleven of elective in the Classical and Latin Philosophical Courses. Special courses, subject to change from time to time, are also offered.

A. Candidates for the Degree of Bachelor of Science take Latin daily during the Freshman year. This course is intended for students who have passed only in the General Requirements in Latin, for admission. The work consists in the study of *Cicero* (*selected speeches*) and *Vergil*, or *Livy*, and *Prose Composition*.

B. The following courses are designed for students in the Classical and Philosophical Courses, but are also open as electives to students in the Science Course who may be qualified to take them:

1. **Cicero.** *De Senectute*. Livy, Book I. Review of special topics in Latin grammar. Oral and written exercises in Prose Composition, based upon the text. Translation at sight and at hearing. First term, Freshman year, two divisions.

2. **Livy.** Books XXI and XXII. Latin Prose Composition, based upon the text. Roman history: Special chapters in Liddell. Second term, Freshman year, two divisions.

3. **Velleius.** Roman History. Pliny. Selections from the Epistles. Translation at sight. Latin Prose Composition, based upon the text. Third term, Freshman year, two divisions.

4. **Horace.** Selections from the Odes, Satires, and Epistles. Prosody; Historical Outlines of the Latin Language and Literature; Wilkins' Primer; Lectures. First term, Sophomore year, two divisions.

5. **Roman History.** The work is based on Allen's Rise and Fall of Rome. Mommsen, Bury and Gibbon are used for supplementary reading. Second term, Sophomore year.

6. **Quintilian.** Books X and XII. Roman Literature. Second term; open to those who have taken course 4; alternating with 12.

7. **Juvenal Selected Satires.** Third term; open to those who have taken course 4.

8. **Plautus.** Selected Plays. First term; open to Seniors and Juniors; alternating with 11.

9. **Terence.** Andria, Hauton Timorumenos, and Phormio; lectures on such subjects as the life and influence of Terence, the Roman theatre, the production of comedy, etc. Second term; open to Seniors and Juniors; alternating with 14.

10. **Latin Inscriptions.** Allen's Remnants of Early Latin; Egbert's Manual. Third term; open to Seniors and Juniors; alternating with 13.

11. **Tacitus.** Annals. Translation at sight. Roman History. First term; open to Seniors and Juniors; alternating with 8.

12. **Latin Poets.** Crowell's Selections. Roman Literature. Second term; open to those who have taken course 4; alternating with 6.

13. **Teachers' Course in Latin.** Special topics in grammar with practical exercises in Cæsar, Cicero, Vergil. Third term; open to Seniors and Juniors; alternating with 10.

14. **Roman Private Life.** Lectures; required reading; one report, involving elementary investigation. Second term; open to Seniors and Juniors; alternating with 9.

15. **Roman Law.** Morey's Roman Law; Sandar's Institutes of Justinian; lectures and reports. Third term; open to Seniors and Juniors; required in the Course of Jurisprudence.

16. **Roman Philosophy.** Cicero and Seneca, one hour.

17. **Christian Writers.** Tertullian and Latin Hymns, one hour.

18. **Classical Philology.** Introductory Course, one hour.

VIII. THE ENGLISH LANGUAGE AND LITERATURE.

ENOCH PERRINE, LITT. D., PROFESSOR.

1. **English Literature,** introductory course. Designed to give a general knowledge of the history of English Literature from the Elizabethan to the Victorian periods, inclusive. Required, second term, Sophomore.

2. **English Literature** from 1832. For those who have taken course 1, and alternating with course 13.

3. **English Literature**, 1790-1832: Wordsworth, Coleridge, Shelley, Byron. For those who have taken course 1, and alternating with course 14.

4. **English Literature**, 1614-1790. For those who have taken course 1, and alternating with course 15.

5. **English Literature**, 1600-1660. For those who have taken course 1, and alternating with course 8.

6. **Shakspeare**. Reading of several plays, chiefly as studies in interpretation. For Seniors and Juniors.

7. **Shakspeare**. His mind and art. Critical study of *A Midsummer Night's Dream*, *Hamlet*, and *Tempest*. For Seniors and Juniors.

8. **The English Drama**. Its development from the earliest times to Shakspeare. For those who have taken course 1, and alternating with course 5.

9. **Teachers' Course in English**. Designed to familiarize the student with those authors, both in the way of theory and practice, that are required for entrance to college. For those who have taken course 1, and alternating with course 10.

10. **Principles of Literary Criticism**. For Seniors and Juniors, and alternating with course 9.

11. **American Literature**, with special reference to the national period. For those who have taken course 1, and alternating with course 12.

12. **Journalism**, a study and practice of the various forms illustrated in the metropolitan "dailies," together with proof-reading, study of the functions of editors, and readings in the history of great American journalists and journals. For those who have taken course 1, and alternating with course 11.

13. **Anglo-Saxon**. Old English Language and Literature, with special elective in *Beowulf*. For those who have taken course 1 and the required work in German.

14. **Chaucer**. Middle English Language and Literature, with readings in Langland and Gower, and in Lounsbury's *The English Language*. For those who have taken course 1 and the required work in French.

15. **Modern English**. Special comparative readings in Modern English Prose. For those who have taken courses 13 and 14, or who show special fitness for the work.

16. **Foreign Literature in English.** Lectures on some of the world's masterpieces are given to the Seniors on Monday mornings during the third term. Alternating with this course, lectures are given on Modern English Fiction.

17. **Periods of English Literature.** Special work is given in different periods of English Literature to those who have passed with credit in courses 1 and 2.

18. *Le Public et les Hommes de Lettres en Angleterre, 1660-1744; Beljame; or Ecrivains Modernes de l'Angleterre, Montegut.* Minor.

19. **Shakspere.** Fünf Vorlesungen von Bernhard ten Brink. Minor.

IX. RHETORIC AND ORATORY.

LLEWELLYN PHILLIPS, A. M., D. D., PROFESSOR.

BROMLEY SMITH, A. M., INSTRUCTOR IN RHETORIC AND ORATORY.

A.—COURSES IN RHETORIC AND COMPOSITION.

1.: **Rhetoric and English Composition.** Introductory course. Themes, weekly recitations, and consultations. Three terms; one hour. Required of Freshmen.

Students who show good preparation are admitted to a special section, in which more advanced work is given.

2. **English Composition.** Daily themes, recitations, and consultations. First term, five hours. Required of Sophomores.

3. **Argumentation.** Baker's *Principles of Argumentation*. Briefs, forensics and oral discussion. Third term. Open to students who have passed in 1 and 2.

4. **English Composition.** *Advanced Course.* Wendell's *English Composition*. Daily and fortnightly themes, recitations, and consultations. Second term; five hours. Open to Seniors and Juniors.

5. **Theses.** Every member of the Junior and the Senior Class writes a thesis. The Junior theses contain not less than two thousand words, the Senior theses not less than three thousand words. The subjects are chosen in conjunction with the heads of the departments to which the subjects belong. Upon these theses are based the Junior Exhibition orations and the Commencement ora-

tions. The subjects of the theses are presented to the Professor of Rhetoric before October 22, and an outline of each thesis is presented to the Professor of Rhetoric at the close of the first term. The completed theses are handed in before March 1. They are examined first by the heads of the departments to which the subjects belong and afterwards by the Professor of Rhetoric.

6. **English Prose.** Studies in Structure. Two hours.

7. **English Prose.** Studies in the Principles of Style. Two hours.

8. **Teachers' Course.** The theory and practice of Rhetoric and Composition. Carpenter, Baker, and Scott. The teaching of English. Five hours. Open to students who have attained an average grade of nine in courses 1, 2, and 4.

9. **The Theory of Rhetoric.** A study of the laws of thought.

10. **Movements of Thought in the Nineteenth Century.** Methods of investigation; theses. Open to Seniors.

B.—COURSES IN ORATORY.

The aim is to train the student to speak effectively in the pulpit or upon the platform or at the bar. All instruction is based upon the principle that impression precedes and determines expression. Each student receives individual attention during the first half of the course in elocution, during the latter half in oratory. Special attention is given to debate. Each student is urged to take an active part in the work of the Literary Societies.

The ultimate object of the *physical culture* is to secure a good presence and the ability on the part of the voice and body to interpret correctly the conceptions of the mind.

FRESHMEN.

1. **Physical Culture.** Exercises for securing correct position, and harmony of movements and attitudes; exercises for breath control and vocal culture and for grace in gesture.

2. **Public Speaking.** Study of the fundamentals of public speaking; delivery of short extracts from masterpieces of oratory, aiming to secure directness, earnestness, and dignity of address. Required, first and second terms, one hour.

3. **Public Speaking.** Delivery of complete orations illustrating and applying the principles studied in the first and second

terms. A prize is offered to the young man and one to the young woman of the Freshman Class who excels in the delivery of these orations. Required, third term.

SOPHOMORES.

4. Public Speaking. Close analysis and study of the details of public speaking; study of the various styles of delivery and of the different forms of discourse. Delivery of selected extracts from masterpieces illustrating each. Extemporaneous speaking. Reviews and continuation of the physical culture of course 1. Required, first term, one hour.

5. Public Speaking. Study of narration. Description and argumentation. Delivery of selections illustrating each. Preparation and delivery of original narrations and descriptions. Extemporaneous speaking. Required, second term, one hour.

6. Public Speaking. Delivery of complete argumentative selections. Preparation for and participation in debate. A prize is awarded to the young man of the Sophomore Class who shall excel in the delivery of an assigned selection in argumentation. A prize is awarded to the young woman of the Sophomore Class who shall excel in the delivery of an assigned selection in narration. Third term.

7. Public Address. The various forms of addressing the public are studied. Beginning with open letters and editorials, the class advances to presentations, acceptances, nominations, dedications, inaugural addresses, institute talks, banquet toasts, eulogies, commemorative orations, etc. Each student prepares and delivers before his class specimens from the above forms. Third term, five hours; Sophomores.

8. Practical Oratory. Briefs and notes are made the basis for extemporaneous addresses; Congressional speeches and modern occasional orations are outlined and studied. The application of rhetorical and of oratorical principles in their connection with logic is considered. Special work in line with the student's intended profession is given. A limited field, historical, economic, or otherwise, is assigned to each student for development. When his orations have been examined and corrected, the student delivers them before the class. First term, five hours; Seniors and Juniors.

9. Interpretative Reading. The use of the voice in bringing out the meaning of the best literature is obtained by practice in

class. Attention is given to the pedagogical and psychological aspects of reading. Second term, five hours; Seniors and Juniors. (Counts as Minor.)

JUNIORS.

10. Prize Contest. A prize contest in Oratory is held in the third term by Juniors, appointed on the ground of superiority in composition and elocution as shown during the preceding terms of the college course.

11. Prize and Honor Debate. During the year there are three debates by Juniors, the last of which is a prize and honor debate.

12. Oral Debates. Briefs, Debates, and Criticism. The Professor of Economic and Political Science coöperates in this course. First term; one hour.

The contestants for the Junior Prize are selected from the students who take this course.

SENIORS.

13. Honors in Debating. During the year an elective course in debating is offered to Seniors. The last debate is public.

14. Prize in Oratory. A prize is offered for the best oration of those delivered by the Senior orators at Commencement, regard being had equally to subject-matter, style, and delivery.

X. DEPARTMENT OF MODERN LANGUAGES.

GUIDO CARL LEO RIEMER, A. M., PH. D., PROFESSOR.

BENJAMIN W. GRIFFITH, A. M.,
INSTRUCTOR IN FRENCH.

LEO LAWRENCE ROCKWELL, A. M.,
INSTRUCTOR IN GERMAN.

A.—GERMAN.

1. Elementary Course. Grammar; German Prose; practice in writing German. Two terms.

2. German Prose. Grammar; practice in writing German, reading of Prose and Poetry. Course 1.

3. **German Prose and Poetry.** Grammar; practice in writing German. Required course, Freshmen of the Scientific Course; elective course for those who have taken course 2.

4. **Historical German Prose.** Practice in writing German. Elective course for those who have taken course 3.

5. **Modern German Novelists.** Practice in writing German. Elective course for those who have taken course 4.

6. **Schiller.** Practice in writing German; lectures. Elective course for those who have taken course 4.

7. **Goethe.** Practice in writing German; lectures. Elective course for those who have taken course 4.

8. **Goethe.** Practice in writing German; lectures. Elective course for those who have taken courses 5-7.

9. **Goethe.** Shorter Poems, *Dichtung und Wahrheit*, *Faust I*; lectures. Elective Course for those who have taken course 8.

10. **Lessing.** Practice in writing German; lectures. Elective course for those who have taken course 9.

11. **Kleist, Grillparzer and Uhland.** Practice in writing German; lectures. Course 11 alternates with course 8.

12. **Heine, Hebbel and Ludwig.** Practice in writing German; lectures. Course 12 alternates with course 9.

13. **Hauptmann and Suderman.** Practice in writing German; lectures. Course 13 alternates with course 10.

14. **Lotze.** *Grundzüge der Psychologie.* (Philosophy 3.)

15. **Shakspeare: Fünf Vorlesungen.** (English 16.)

16. **German Political Science.** (Economics 16.)

17. **German Biological Science.** (Biology 21.)

18. **German Chemical Science.** (Chemistry 16.)

19. **Scientific German.** Designed especially for students in the Engineering Courses. Two hours, throughout the year.

B.—FRENCH.

1. **Elementary Course.** Grammar; French prose; practice in writing French. Required course, Freshmen.

2. **French Prose.** Grammar; practice in writing French. Elective course for those who have taken course 1.

3. **French Prose and Poetry.** Grammar; practice in writing French. Elective course for those who have taken course 2.

4. **Historical and Critical French Prose.** Practice in writing French. Elective course for those who have taken course 3.

5. **Authors of the XIX Century.** Practice in writing French. Elective course for those who have taken course 4.

6. **Corneille and Racine.** Practice in writing French; lectures. Elective course for those who have taken course 5.

7. **Molière.** Practice in writing French; lectures. Elective course for those who have taken course 6.

8. **Authors of the XVIII Century.** Practice in writing French; lectures. Elective course for those who have taken course 7.

9. **A View of French Literature.** Rapid reading; practice in writing French; lectures. Elective course for those who have taken course 8.

10. **Publique et les Hommes de Lettres, or Ecrivains Modernes de l'Angleterre.** (English 15.)

C.—SPANISH.

1. **Elementary Spanish.** Grammar. Conversation. Translation of easy prose. Elective course, for Seniors and Juniors. First term, five hours.

2 and 3. **Spanish Prose.** Translation, Composition, Conversation. Elective course, for Seniors and Juniors. Second and third terms, five hours.

D.—ITALIAN.

Special instruction for engineering students in Italian Grammar and Conversation.

XI. DEPARTMENT OF MATHEMATICS.

WILLIAM CYRUS BARTOL, PH. D.,
PROFESSOR OF MATHEMATICS AND ASTRONOMY.

CHARLES ARTHUR LINDEMANN, A. M.,
PROFESSOR OF APPLIED MATHEMATICS.

FRANK MORTON SIMPSON, SC. M.,
PROFESSOR OF PHYSICS AND DRAWING.

WALTER KREMER RHODES, A. M., E. E.,
PROFESSOR OF ELECTRO-TECHNICS.

FRANK EUGENE BURPEE, A. M., ASSISTANT PROFESSOR.

MARTIN LINNAEUS DRUM, SC. M.,
ASSISTANT PROFESSOR OF MATHEMATICS AND SURVEYING.

CAMERON A. BUTT,
HUGH ELLIS ROSEN,
ASSISTANTS IN SURVEYING.

GEORGE FRANK CASE, ASSISTANT IN SHOPWORK.

JOHN CHARLES BANKS, ASSISTANT IN PHYSICS.

1. **Solid Geometry.** The course includes the geometry of solids with plane surfaces, the cone, the cylinder, the sphere, the spherical triangle, and conic sections. Freshman year, first term, five hours.

2. **Algebra.** The topics are ratio, proportion, variation, progressions, theory and development of functions, logarithms, differentiation of algebraic functions, indeterminate equations, series, higher equations. Freshman year, first or second term, five hours.

3. **Determinants and Advanced Algebra.** Open to students who have completed course 2. Second term, five hours.

4. **Trigonometry.** The course includes plane trigonometry with application to problems in mensuration and surveying, and spherical trigonometry with applications to problems in astronomy. Freshman year, second or third term, five hours.

5. **Analytical Geometry.** The student is taken through the properties of the right line, the circle, and the conic sections, and higher plan curves. The course is intended to give a clear conception of the methods of Cartesian analysis and a knowledge of its results. Freshman year, third term, five hours, or Sophomore year, first term, five hours.

6. **Higher Analytical Geometry.** The course covers the geometry of three dimensions surfaces of revolution and higher plane curves. Junior year, first term, five hours.

7. **Differential Calculus.** The course includes higher derivatives and functions of several variables, infinite series, maxima and minima. Prerequisite, course 5. Sophomore year, second term, five hours.

8. **Integral Calculus.** The course includes the methods of integration, rectification and quadrature of plane curves, surfaces and solids of revolution, and applications to problems in Physics and Mechanics. Sophomore year, third term, five hours.

9. **Differential Equations.** A course with mechanical applications. Senior year, first term, five hours.

10. **Descriptive Astronomy.** The aim of the course is to present in concise form a synopsis of astronomical knowledge to date. Lectures. Sophomore year, Arts and Science courses, first and second terms, one hour.

11. **General Astronomy.** The subject is taught by text-book, with illustrations in the observatory. The students have free use of the ten-inch equatorial telescope. Third term, five hours.

12. **Geodetic Astronomy.** The course includes the use of the astronomer's transit and micrometer; observations for Time; conversion of Time; Latitude, Longitude, Azimuth and their geodetic determination; figure and dimensions of the Earth; use of the American Ephemeris; practice in the Observatory. Prerequisites, a course in Surveying and one in the Elements of Astronomy. Seniors, first term, five hours.

13. **Plane Surveying.** *Land Surveying*, laying-out, subdividing, and finding the area of given tracts of land. *Topographical Surveying*, by chain and compass, by plane table, and by transit instrument and stadia rods. Sophomore year, first term, five hours.

14. **Geodetic Surveying.** Minor course. Sophomore year. Civil Engineering, one hour throughout the year.

15. **Railroad Surveying.** Instruction is given in the theory of simple and compound curves, wyes, switches, and turn-outs. A corps is organized, which makes a preliminary survey of a cross-country railroad. The topography of this is taken and plotted; elevation of centre line taken; grade determined; degree of curves fixed, and paper location made. Centre line of permanent survey is

now located; slope stake set; earthwork calculated; specifications drawn up, and estimates made of the line surveyed. Sophomore year, Civil Engineering, third term, five hours.

16. Mine Surveying. Problems in Mine Surveying, such as plumbing the shaft, locating the bore holes, lining up chambers, driving tunnels, are worked out in class and with the instruments. Plotting of notes forms a part of the work, and a trip of inspection is made to some nearby workings. Senior year, Civil Engineering, third term; five hours for six weeks.

17. City Surveying. Town sites are located and plotted; permanent reference points and bench marks established; sewers located and calculated; curb and property lines determined. Senior year, Civil Engineering, third term, five hours for six weeks.

18. Descriptive Geometry. A study of the representation of lines, plane surfaces, solids, and sections of solids; the projection of points, lines, and surfaces; practical problems. Engineering Courses, Sophomore year, second term, five hours, and Junior year, first term, five hours.

19-21. Courses in Drawing. Extending through the Freshman year of the courses in Engineering, and required of all candidates for the first degree in Civil, Mechanical or Electrical Engineering. Ten hours a week.

(1) **Linear and Free-hand.** A course in drawing to give the student facility in the use of instruments; Geometrical problems; cross-sectioning; shading; isometric drawing; sketching from models.

(2) **Lettering.** The form and proportion of standard letters; structural details; methods of spacing; laying out titles.

(3) **Architectural Drawings.** Plans, elevations, and perspective drawings; copy of standards.

(4) **Pen and Color Topography.** Topographical signs; methods of hill shading; surface forms by contours and in color and pencil; enlarging and reducing maps, rendering in water colors, sepia, and charcoal.

(5) **Tracing and Blue Printing.** Photographic methods of the Architect and Engineer.

22. Architectural Design. The design of brick and stone structures, including the preparation of plans and specifications. Junior Engineering, one hour, first and second terms.

23-25. General Physics. (Three terms.) These courses in Physics are required in the Engineering Courses and are elective in the other courses. Instruction is given in the Laboratory supplemented by recitations and lectures.

(a) **LABORATORY.** The Laboratory instruction extends throughout the year and includes experiments illustrating the general laws in all branches of physics. The experiments are largely quantitative and use is made of instruments of precision. The work is entirely individual. The student is required to take notes in the Laboratory, elaborating them outside and presenting for criticism from time to time.

(b) **RECITATIONS.** Recitations supplement the laboratory work. The study of a text covering the theoretical and mathematical side of the subject is required.

(c) **LECTURES.** Frequent lectures are given in which use is made of lecture-room apparatus. All important phenomena are illustrated and experimental demonstrations of the principal laws are presented.

(1) **Mechanics and Heat.** First term.

(2) **Electricity and Magnetism.** Second term.

(3) **Acoustics and Optics.** Third term.

26-29. Advanced Physics. The course extends throughout the year and assumes that the student has completed courses 23-25 or the equivalent. Instruction is given chiefly in the Laboratory. Students are instructed in the use of instruments of precision employed in Heat, Light, Electricity, and Magnetism. The work in the Laboratory is supplemented by written reports in which both general and theoretical results obtained are discussed. These reports afford the basis for criticism of the work. The work must be pursued in such order as the appointments of the Laboratory may require.

26. Electrical Measurements. In this course the student is required to make a thorough study of the instruments of precision used in electrical testing laboratories. The Laboratory is supplied with a large number of galvanometers of the various types, standard cells, standards of resistance, condensers, bridges of the various types, Kelvin Balance, Siemens Dynamometer, variable standard of self-inductance, potentiometers, etc. In brief, the work covers

(a) Measurement of current, E. M. F., Resistance, Capacity, Induction.

(b) Study of primary and secondary batteries and standard cells.

(c) Tests and calibration of commercial instruments.

(d) Magnetic behavior of iron. Hysteresis.

27. Heat. A thorough study of the first and second laws of thermodynamics is made. The laboratory work consist of exhaustive studies in *thermometry*, including high temperature measurements by use of the platinum resistance thermometer and the thermocouple. *Calorimetry*, including the determination of heat values of *solid, liquid and gaseous* fuels. Also the steam calorimeter. *Mechanical equivalent of heat* by means of the continuous-flow calorimeter and the Rowland apparatus.

28. Light. The student is instructed in the use of the spectrometer, spectroscope, interferometer, and photometer. A careful study is made of the candle-power of various types of incandescent lamps and gas burners using the Bunsen, Jolly and Lummer-Brodhun screens.

29. Spectrum Analysis. Recitation 1 hour, Laboratory eight hours per week.

Comparison, observation and mapping of emission spectra with the spectroscope; the qualitative analysis of unknown chemical mixtures and minerals; spark and arc spectra of solids; spark and flame spectra of solids, liquids and gases; absorption spectra of certain mixtures and coloring materials.

The equipment comprises a fine spectroscope by Brashear, a Rowland grating of 14,438 lines to the inch, a spectrometer by the Geneva Society, prisms of all types by the best foreign makers, absorption cells, etc.

30. Strength of Materials. Tensile, compressive, shearing and cross-bending stresses are considered; methods of testing materials of construction are outlined, and problems in the design of wooden and steel beams, girders, footings, beams, roof trusses, etc., are worked out. First term, Junior Engineering, five hours.

31. Masonry Construction. The materials of masonry construction and their preparation and use receive attention; this is followed by a study of foundations—ordinary, pile, and under water. Under masonry structures are treated; masonry dams, retaining walls, bridge abutments and piers, culverts, and masonry arches. Second term, Junior Civil Engineering, five hours.

32-34. Bridges and Buildings. The first term is devoted to Graphical Statics, problems being worked out daily in the drafting room. The work of the second term consists in the determination of stresses in framed structures by means of graphic and algebraic methods. The third term is spent in the calculation and designing of some framed structure and the preparation of the drawings for the same. Senior Civil Engineering, three terms, five hours.

35. Roads and Pavements. The economic location and design of streets and pavements are considered along with the questions of street drainage and foundations for roads and pavements. Comparisons are made between earth, gravel, broken stone, shell, plank, and burned clay roads, and also between asphalt, brick, stone, block, and wooden block pavements. Equestrian roads, race tracks, bicycle paths, and sidewalks receive attention. First term, Junior Civil Engineering, five hours.

36. Hydraulics and Hydraulic Motors. This course includes the theory of Hydrostatics and Hydraulics, the flow of water over weirs, through orifices and tubes, and in pipes, canals, and rivers; the measurement of water-power; water wheels and turbines. Senior Engineering, second term, five hours.

37. Water Supply and Sanitary Engineering. Under the head of the collection and storage of water are taken up quantity of water required, rainfall, flow of streams, storage and evaporation of water, supplying capacity of water sheds, springs, and wells. The flow of water in streams, pipes, and channels is discussed, as also the practical construction of water works. A study is made of the various methods of sewage disposal. Third term, Junior Engineering, five hours.

38. Contracts. In this course are given the principles of Common Law as applied to contracts. Third term, Senior Engineering, one hour.

39. Theoretical Mechanics. Differential and integral calculus are required for admission to this course. The first part of the term is given to ordinary differential equations. This is followed by the study of forces, couples, moment of inertia, and flexible cords, together with the geometry of motion, dynamics of machinery, work, energy, friction and impact. Juniors, first term, five hours.

40. Direct Current Machinery. This course must be preceded by the course in Electrical Measurements or its equivalent. At-

tention is given to the principles of measuring instruments and their calibration, absolute measurement of inductance, principles of dynamo electric machinery, structural details and performance characteristics together with related problems. Lectures, recitations, and laboratory work. Juniors, Engineering, second term, five hours.

41. Alternating Current Generators, Transformers and Motors. Electromotive force and current curves are traced, and their modifications as determined by various conditions of the receiving circuit are noted carefully. Efficiency, regulation, and general performance of alternating current apparatus are studied in detail. This course must be preceded by the course in Direct Current Machinery. Lectures, recitations, and laboratory exercise. Juniors, Engineering, third term, five hours.

42. Design of Electrical Machinery. During the first part of the work in design type forms of electromagnets, direct current generators and motors are computed and drawings made of the electrical and mechanical details. In the second part of the course, type forms of alternating current generators, transformers, and induction motors are computed and drawn in detail. Exercises are given in the winding of transformers and induction motors. Lectures, computing exercises, drawing and shopwork. Seniors, Electrical Engineering, first and second terms, five hours.

43. Generating Stations and Sub-stations, Distribution of Electricity, Storage Batteries. Comparative performance of the important prime movers, and the economic management of generating plants and sub-station equipment are studied in detail and practical estimates made. Attention is also given to the application of secondary cells to the problems of distribution. Seniors, Electrical Engineering, first term, five hours.

44. Telegraph, Telephone, Railway Signal and Related Apparatus. Attention is given in detail to the electrical connections, and principles of operation of the various types of apparatus. Efficiency tests are made and the graphs plotted. Recitations and laboratory work. Seniors, Electrical Engineering, second term, five hours.

45. Electric Lighting, Construction, Wiring and Economics. The various systems and arrangements of wiring for lighting and power distribution are investigated, and practical problems in the economics of wiring and line construction are computed. Typical

systems are worked out in detail. Seniors, Electrical Engineering, third term, five hours.

46. Electric Railways, Construction, Operation and Economics. This course deals with the theory and design of the different types of electric railway construction. Analysis of train performance, types of control, systems of braking and methods of motor suspension are studied in detail. The economics of the operation and maintenance of American electric railways is considered in the conclusion of the course. Seniors, Electrical Engineering, third term, five hours.

47. Machine Design, Machine Tools. Elementary machines, generation of tooth outline in gears, and aggregate combinations are studied in detail, followed by the computations of type forms of cutting and grinding tools. Lectures, recitations and drawing. Juniors, Electrical Engineering, throughout the year, one hour.

48. Boilers, Steam, Gas, Air, and Oil Engines, Valve Gears, and Governors. This is a general course dealing with the thermodynamics of the heat engine, the theoretical, indicated and actual horse-power of the steam engine, and methods of calculating each. A study of the different types of steam boilers, and how to calculate and use them, is made. The general subject of combustion is taken up and calculations made on different kinds of fuel, both from proximate and ultimate analyses. A large number of problems relating to steam engines, boilers and power plants are given, and three or four actual tests on engines and boilers are made and reports are made out in accordance with the standard forms. Junior year, Engineering all courses, third term, five hours.

49, 50, 51. Steam Engineering. Senior year, Mechanical Engineering, five hours, through the year.

49. Steam Engines and Turbines. In this course the different types of steam engines and turbines are carefully studied, going more into detail than in course 48, special attention being given to the moving parts such as valves, valve-gears, etc. Also the various economizing appliances and their effect upon the cost of producing power are taken up. The class-room work is supplemented by frequent tests on engines, by means of which the theoretic calculations are verified. First term.

50. Boilers. A careful study of the construction and settings of different types of boilers is made. Different systems of steam heating are considered and the student is required to design and calculate all dimensions for a steam boiler and piping

system of proper capacity to heat a given building, locating all radiators, valves, cocks, steam-traps, etc. Attention is also given to feed water heaters, pumps, injectors and other boiler auxiliaries, as well as to the matter of boiler scale and its preventatives. Second term.

51. Steam Engine Design. This course follows very closely course 49, covering the design of the principal parts of the steam engine, such as the cylinder, piston, shaft, fly-wheel, governor, etc. After the principles of design have been carefully worked out in the class-room, each student is required to design and draw the parts for a steam engine of given size. Third term.

52-54. Shopwork. In Mechanical Engineering, shopwork is required of students throughout the four years of the course. In Civil, Electrical and Chemical Engineering, it is required throughout the Sophomore year. The Machine Shop is provided with all necessary appliances for teaching the subject in the best manner. Four courses are given, each extending through a year.

52. Wood-working. The course in wood-working consists of carpentry, cabinet work and the principles of wood-turning. Freshman year, Mechanical Engineering, two hours.

52. Pattern-making and Moulding. A general course covering pattern-making, simple moulding and the principles of more complex moulding and machine shop practice. The patterns are made and moulded and the castings machined by the same students. Parts of actual machines, such as gas-engines, speed lathes and electric motors are made and assembled during the course. Sophomore year, all Engineering Courses, four hours.

54. Gas and Gasoline Engines. A careful study is made of the various types of gas and gasoline engines, their theory, history and design being discussed. Each student is required to design the parts, make the patterns and actually build a small sized gas engine, putting it together ready to run. Junior year, Mechanical Engineering, four hours.

55. Steam Engine. The work in this course is similar to that in course 53, except that either a steam engine or an electric generator is built. Senior year, Mechanical Engineering, four hours.

XII. DEPARTMENT OF CHEMISTRY.

WILLIAM GUNDY OWENS, A. M., PROFESSOR.

JOHN CLYDE HOSTETTER, SC. M., INSTRUCTOR.

The courses in Chemistry are designed to give a comprehensive view of the field covered by chemical investigation and to train the student in the various methods of chemical research. The courses as a whole are offered to those who expect to teach chemistry or enter the testing or industrial laboratory. As chemistry is at the foundation of the natural sciences, the first courses are essential to the study of science and medicine, and are important for general culture.

1. Descriptive Chemistry. Text-book, lectures, and laboratory experiments. The properties, preparation, history, and uses of the non-metallic elements and their compounds. First term.

2. Descriptive Chemistry. Text-book, lectures, and laboratory experiments. The properties, preparation, history, and uses of the metallic elements and their compounds. Second term.

3. Qualitative Analysis. In the first part of the term chemical reactions are studied in the laboratory, class-room, and text-book, after which fifty compounds, mixtures, and industrial products are determined. Each student reports individually and is questioned on the methods of determination. Twelve hours laboratory work a week required. Third term, prerequisite courses 1 and 2.

4, 5, 6. Quantitative Analysis. This course, extending through the year, aims to acquaint the student with the methods of analysis used in different chemical determinations.

(1) In the first term Gravimetric and Volumetric analyses are made with pure chemicals to acquire principles and methods.

(2) In the second term, Standardization, rock ore alloy and water are studied.

(3) In the third term Fire, Gas and Electro-chemical methods are practiced.

7, 8, 9. Organic Chemistry. Prerequisites, courses 1, 2, and 3. Five hours a week; laboratory 6 hours.

(1) First term. The saturated hydrocarbons and their derivatives are studied with special regard to constitution. Pure organic

compounds are prepared in the laboratory and their reactions investigated. Ultimate organic analysis begun; Carius' determinations.

(2) Second term. The unsaturated hydrocarbons of the olefine and acetylene series and their derivatives are studied. Later, carbohydrates, ureids, etc., are taken up. Stereo-chemistry. In the laboratory, more preparations are made and ultimate organic analysis continued with determination of nitrogen, carbon, and hydrogen.

(3) Third term. The aromatic hydrocarbons and their derivatives are studied. Later, polycyclic and heterocyclic compounds; terpenes and camphors are taken up. In the laboratory, preparations of comparative difficulty are made and ultimate organic analysis continued with eletro-combustions.

(4) Organic Preparations. Prerequisites, Organic Chemistry. A laboratory course of 15 hours per week, designed to give technic in organo-synthesis. Written reports with critical discussions of reactions, methods, etc., are required for all preparations.

(5) Organic Preparations. A laboratory course of 15 hours per week. Written reports required as in IV. Dyes are prepared during the first part of the term, and sugars and related compounds are later taken up.

10, 11, 12. **Physical Chemistry.** Prerequisites, Chemistry 1, 2, 3, 4, 5, and 6; Physics 23, 24, and 25. Calculus.

Five hours per week. Laboratory 6 hours. Written reports with critical discussions required for all experiments.

(1) First term. Gases and gas laws, kinetic theory of gases, solubility, the phase rule, equilibria, etc., are studied. Thermodynamics introduced.

Laboratory determinations of density, viscosity, molecular rotation and refraction, solubility, partition, and vapor pressure are made.

(2) Second term. Thermo-chemistry, solution, osmotic pressure, and balanced actions are first studied. Later, the theoretical part of electro-chemistry is begun. Chemical statics and dynamics continued.

The laboratory work consists of determinations in thermometry, calorimetry; of molecular weights, and velocities of reactions.

(3) Third term. Electro-chemistry. Theoretical electro-chemistry is continued and technical subjects are studied. Conductivity, migration of iron, electromotive force, and polarization

are studied in detail. Experiments on these subjects constitute the laboratory work.

13, 14, 15. **Chemical Preparations.** Prerequisites, courses 1, 2, 3. Laboratory Course; 15 hours per week.

(1) First term. Inorganic substances are prepared and purified. Underlying principles of methods are emphasized in the written reports required for all preparations.

(2) Second term. Fifteen hours per week. Preparations of some difficulty are now made. In the second half of the term compounds of the rare earths are prepared and their reactions studied.

(3) **Electro-synthesis.** Third term. Inorganic and Organic compounds are synthesized with the aid of the electric current. Arc-furnace work is later taken up. Relations of yield to temperature, current density, etc., are taken up in detail by the student in the written reports.

16. **Toxicology and Urinalysis.** Poisons and their separation from organic matter are studied during the first part of the term. During the second part analysis of urine and of food adulteration is studied. Laboratory work, ten hours a week. Prerequisites, courses 1, 2, and 3.

17. **Metallurgy.** The manufacture and properties of iron and steel are studied and the influence of carbon, silicon, phosphorus, sulphur and other elements. Laboratory work consists in determining these elements and studying the structure under the microscope. Glass blowing and manipulation are also taken up. Laboratory work, eight hours a week. Prerequisites, courses 1, 2, and 3.

18. **Agricultural Chemistry.** The chemistry of plants and fertilizers is studied. Fertilizer and food analysis is practiced in the laboratory six hours a week. This course covers the legal requirements for teachers of Pennsylvania high schools. Prerequisites, courses 1, 2, and 3.

19. **German Chemical Literature.** One hour a week, throughout the year. Prerequisites, at least two terms of German, and courses 1, 2, and 3 in chemistry.

Selections from standard German text-books and periodicals are read, and study is made of the derivation and formation of scientific words.

20. **Physical Chemistry.** Mathematical topics.

21. **Organic Research.**

22. **History of Chemistry.**

XIII. DEPARTMENT OF ORGANIC SCIENCE.

GEORGE G. GROFF, M. D., LL. D., PROFESSOR.

NELSON FITHIAN DAVIS, SC. D., PROFESSOR OF BIOLOGY.

GEORGE N. WILKINSON, SC. B., A. B., INSTRUCTOR.

HARRY CLAUDE SEILER, SC. B., ASSISTANT.

It is the constant aim in this department to teach how to interpret nature. The student is guided in his investigations by lectures and laboratory manuals.

Courses 1, 2, 6, 7, 8, 17, 19, 21, 22, and 24 are given by Professor Groff.

Courses 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, and 23 are given by Professor Davis.

1. **Animal Physiology.** The aim of this course is to acquaint the student with the elementary facts concerning the functions of the human body. The work consist of lectures and readings from text-books on Physiology. The course is intended for those who wish a general knowledge of Physiology.

2. **Neurology.** Recitations lectures, and laboratory work. The course is intended to give the general anatomy and histology of the Nervous System such as is required for those preparing for Medicine. Prerequisite, course 1 and General Chemistry.

3. **Experimental Physiology.** Lectures and experiments to illustrate the functions of the organs of the animal body. Alternating with course 4.

4. **Physiological and Experimental Psychology.** Elective to Seniors and Juniors. Alternating with course 3.

5. **Comparative and Child Psychology.** Text-book, reports. Elective to Seniors and Juniors.

6. **Sanitary Science.** Lectures, one hour a week, two terms.

7. **Human Osteology and Comparative Anatomy.** Recitations and dissections. In this course the student makes a systematic study of the human skeleton. The structure of the composite bones is compared to those of other vertebrates.

8a. **Human Anatomy.** Lectures, recitations, and dissections. The student has an opportunity to make a complete dissection of the entire human body. The work is largely independent. Models and text-books are used as guides.

8b. A second course, similar to 8a.

9. Normal Histology. Recitations and lectures, and laboratory work. In this course the student makes a thorough study of the microscopic structure of the cell and elementary tissues, followed by the study of the various organs of mammals. In the laboratory work the students prepare specimens by the various methods in fixing, hardening, staining and sectioning.

10. Embryology. Recitations, lectures, and laboratory work. This course is important because it gives a key to the interpretation of the structure and relationship of the parts of the animal body, and because it investigates the development of the individual. It includes the early development of amphibians, birds and mammals.

11. Biology. Recitations and dissections. The aim of this course is to meet the needs of general education in this subject, and at the same time makes clear the fundamental principles, scope, method, history, and subdivisions of Biology and its relation to other sciences.

12. Invertebrate Zoölogy. Recitations and dissections. This course succeeds the course in Biology. It takes up the study and dissection of representatives of the invertebrate groups, including their life, histories, habits and distribution.

13. Vertebrate Zoölogy. Recitations and dissections. This is a continuation of course 10. It completes a general survey of the animal kingdom, special attention being given by each student to dissections, anatomy, life histories, and habits of the various groups.

14. Entomology. Recitations and laboratory work. In this course each student makes a thorough study of the dissection, life history, and habits of insects representative of the different orders. Special attention is given to the economical importance and relation of insects to agriculture.

15. Organic Evolution. Minor course. Lectures and discussions. The evolution of the vertebrates is traced in detail and much time is given to the relation of evolution to religious thought.

16. Heredity. Minor course. The lectures and reports deal with the principal facts and problems of variation and heredity and are supplemented by collateral readings.

17. Phænogamic Botany. Recitations, lectures, and field work. This is a general course including the anatomy of the representa-

tive types and their relation to the environment; a study is made of the local flora.

18. Cryptogamic Botany. Recitations, lectures, and field work. This includes a general introduction to Botany, taking up the study of at least one plant from each of the groups, and working out their life histories. The laboratory work and lectures develop the subject from the evolutionary standpoint.

19. Elements of Forestry. A course covering the factors that control and regulate the development of our forests.

20. Bacteriology. Recitations, lectures, and laboratory work. The laboratory work includes the practice of the essential bacteriological methods. Much time is given to the study of bacteria found in water and in milk.

21. Mineralogy and Geology. Recitations, lectures, and laboratory work. A general course intended to give the leading facts and principles of Geology and the more important events in the Geological history of the earth. The development of the North American continent is studied in detail.

22. Economic Geology. Recitations, lectures, and laboratory work.

23. German Biological Literature. Junior year, one hour throughout the year.

24. Materia Medica. Fall term, five hours.

MEDICAL PREPARATORY DEPARTMENT.

The student can select from the medical subjects offered at Bucknell University such as will be required for advanced standing in the Medical College in which he may wish to complete his studies for the degree in medicine, and if his standing in such subject averages not less than nine, he will receive from the Department of Medicine in Bucknell University a Certificate of proficiency in those subjects and in such other subjects related to medical studies as he may have completed at Bucknell. These subjects are open only to students in the College of Liberal Arts, and the Certificate of proficiency is given to students only upon graduation, and in addition to the Diploma of the College of Liberal Arts.

THE BIOLOGICAL LABORATORY.

The Biological Laboratory is equipped with apparatus for carrying on work in the Organic Sciences. A large room has been

fitted up especially for Microscopic work with equipments for students. Each student has a separate desk containing a microscope and the necessary reagents. The Laboratory is also supplied with collecting and bacteriological apparatus, with books of reference, and other appliances necessary for carrying on Biological research. Those taking Microscopy have the use of microtomes, incubators, reagents, etc. New apparatus is added as occasion demands. The work in Zoölogy is illustrated by marine and fresh-water forms, skeletons, and mounted specimens. In comparative Anatomy and Osteology the work is illustrated by skeletons representing different types of vertebrates. Physiology is illustrated with human skeletons, a life-size French manikin, prepared tissue, and numerous charts. Material for Human Anatomy is received from the State Anatomical Board in Philadelphia, and each student has the opportunity to dissect the whole human body. The work in Materia Medica is illustrated by specimens of crude drugs. The student in Histology and Embryology has a good supply of paraffin and collodion blocks. The work is illustrated with microscopic slides, alcoholic material, and French wax models. Each student is provided with dissecting instruments.

THE MUSEUM.

PROFESSOR NELSON FITHIAN DAVIS, SC. D., *Curator.*

GEORGE N. WILKINSON, }
PHAREZ HUNTZINGER HERTZOG, } *Assistants.*

The University possesses good collections of illustrative material in Botany, Zoölogy, Histology, Geology, Mineralogy, and Materia Medica. Parts of these collections are kept in the laboratories and used in class-room work.

Since the erection of the Carnegie Library two large rooms in this building have been set aside as a museum, and the principal collections have been transferred from the Main College to these rooms. A special effort is being made to secure additions to the museum and objects will be thankfully received, especially such as can be used in laboratory work. Among these may be mentioned: marine and fresh-water forms of life; insects; skeletons of vertebrates; birds and mammals; botanical specimens; crystalized minerals and rocks.

A large collection now owned by the University consists of minerals and rocks, fossils, and Indian relics. It is especially desired to secure collections to illustrate the geology, minerals,

flora, and fauna of Pennsylvania. Recently attention has been given to increasing the collection of Pennsylvania birds, and it is hoped that within a short time the University may possess a good series of mammals also.

ART COLLECTION.

MRS. PEARL S. BURPEE, A. B., *Curator.*

A room in the Carnegie Library ninety feet long has been set aside for the Art Collection. The collection consists of about one thousand specimens of paintings, casts, engravings, and heliotypes, and furnishes valuable aid in illustrating the principles and history of painting and sculpture.

A course of lectures is given yearly to students of the Sophomore class on the History of Art.

THE LIBRARIES AND READING ROOMS.

Librarian: PROFESSOR WILLIAM E. MARTIN, A. M.

Assistants: FRANKLIN JOSEPH GRONDE AND KATHALYN VOORHIS.

The College Library. The general Library contains about twenty-six thousand volumes, besides many thousand pamphlets. The reading room is connected with the Library, and offers facilities for reading, studying, and writing. During term time both are open forenoon and afternoon of each day, Sundays and holidays excepted, and both are maintained without extra charge to students. Students in all departments have free access to the shelves, and may draw two books at one time and retain them for two weeks, with the privilege of one renewal, if desired.

For greater convenience of instructors and students, collections of special technical books are also kept in the Laboratories of the Physical and Organic Sciences, and in the Astronomical Observatory.

The Library is regarded as a working laboratory for all departments of instruction, students being constantly cited to it in class-room work. In this way, while answering the purpose of general culture, it supplements in great measure the monographic treatment of text-book study, and the student is trained under competent guidance to become an investigator. The resulting practical acquaintance with books and bibliography proves a valuable part of liberal education.

The Carnegie building for the accommodation of the Library was erected in 1905, the gift of Hon. Andrew Carnegie, D. C. L.

By aid of the Card Catalogue and Poole's Index to Periodicals, all the resources of the Library on any given subject are at once available.

Gifts to the Library of money and of books will be thankfully acknowledged by the librarian.

GENERAL COLLEGE ORDERS.

ATTENDANCE.

Only under exceptional circumstances will excuses be granted to leave College during term time. In such cases the examination on the studies gone over by the class, during a student's absence, will be especially searching, and a high degree of attainment will be required. When a student is absent more than one fourth of the term for any reason, he is required to stand private examination in addition to the examination required of the class. One who is absent during the entire term must also necessarily lose his standing in his class. The work of the term begins on the day of opening, and recitations are expected at the first hour appointed for the meeting of the classes. The work continues uninterruptedly, with the exception of holidays marked in the Calendar, until the last day of the term.

STANDING.

Each instructor records, in numbers ranging from 0 to 10, the character of the recitation of every student reciting to him, and notes also any delinquency in conduct and attendance. The weekly summary of these markings is recorded in permanent books, and constitutes the basis for determining the standing of the student during his connection with the institution. Unexcused absences from recitations are counted as zero in making up the weekly averages. *Excused* absences have half the effect in lowering a student's standing as unexcused absences, but a student may, at the option of the professor, do supplementary work to obviate the effect upon his standing of excused absences. At the close of each term an average of these marks is made out, and, if the student's financial obligations to the institution have been met, a report of the scholarship, attendance, and conduct of each student is transmitted to his parent or guardian by the President. No student is advanced from one class to another whose average in any study is less than 7; nor is any student recommended to the Board of Trustees for graduation in the general courses if his average standing during either his Freshman or Sophomore year is below 8; or if in his Junior

year it is below 8.5; or if in his Senior year it is below 9. The passing grade for graduate students is 9. No one will be recommended for graduation in the Courses in Jurisprudence, Biology, Chemistry, and in Civil, Electrical or Mechanical Engineering, nor be granted a certificate in the Law or Medical studies, if his average is below 9.

Conditioned students are not recommended to the Board of Trustees for promotion. Students conditioned on entrance must discharge such conditions within the first year thereafter.

If the student has failed in the studies of a term, he will not be permitted to enter upon the studies of a subsequent term until he has passed in the subjects in which he failed, unless a postponement of examination to a definite time is granted by the Faculty.

Appointments in the Graduating Class are made according to the aggregate standing of each member during his entire course. But in assigning these parts the Faculty takes into account the deportment of the student, as well as marks for recitations. The minimum average for an Oration of the First Class is fixed at 9, and for the Oration of the Second Class at 8.

Students who attain an average of 9.4 or more for their entire course are graduated *summa cum laude*; students who attain an average of 9.2 or more are graduated *magna cum laude*; those who attain an average of 9 or more are graduated *cum laude*.

EXAMINATIONS.

The dates of the examination are given in the Calendar. In case a student fails to be present at the examination of his class, for any justifiable reason, his examination will be held at such time as the Faculty may appoint, but in no case is an examination granted a student in advance of the time appointed for the examination of the class.

Unless for very good reasons to the contrary, a student who is granted a special examination will be required to pay a fee of five dollars therefor.

PUBLIC WORSHIP.

The College duties of each day are opened with religious services at Bucknell Hall, which all the students of the College are required to attend.

Attendance upon public worship in some church in town on Sunday morning is required. Students are required to attend the religious services held on Thanksgiving Day.

On the Day of Prayer for Colleges a sermon is preached by the President, or by some one at his request. All the students are required to attend.

GOVERNMENT.

It is assumed that all who enter the courses of study in the College do so for the purpose of acquiring an education, not only of the intellect, but also of character. The Laws of the College, enacted by the Board of Trustees, are as few and simple as the proper regulation of a community of young men will permit. These are printed, and a copy is placed in the hands of every student at the beginning of each year. These laws must be observed, not only in their letter, but in their spirit. The atmosphere of the institution is not that of arbitrary restraint, but of reasonable conformity to reasonable laws. The College does not wish to place its stamp or bestow its honors upon any one who is not willing to deport himself as a gentleman. Each student is distinctly placed upon his manhood, and if he abuses his privileges, after reasonable caution, he must withdraw from the institution, at the request of the President.

PRESIDENT'S OFFICE HOURS.

The President of the University is in his office in the Main College building, every Tuesday, from 9.30 A. M. to 12 noon, to confer with students who may desire advice or assistance. Students are encouraged to communicate frankly with the President upon any subject in which he may be of help to them.

OFFICE HOURS FOR THE COLLEGE WOMEN.

The Dean of the Women's Department will meet in his office College women who may desire advice or assistance from him.

VOLUNTARY SOCIETIES.

The Young Men's Christian Association is formed of students of the College. It receives religious periodicals and corresponds with kindred societies. A hall has been appropriated to the Society, and has been suitably furnished for religious meetings.

The Young Women's Christian Association, a voluntary society open to the officers and students of the College and Institute, meets weekly. The regular Tuesday evening prayer-meeting, missionary and temperance work, special Bible Classes and College Settlement work are in charge of this Association.

Euepia; Theta Alpha. These are the two Literary Societies of the College for men. They hold meetings for Orations, Essays, and Debates. Each Society has a convenient hall, and by an arrangement of the Faculty will always have a nearly equal number of members.

The Zeta Literary Society is composed of young women admitted to any of the Courses in the College.

The Students' Publication Association is an organization which has in charge the issuing of the *Bucknell Mirror*. This periodical appears monthly during the collegiate year. The same Association publishes the *Commencement News* daily during Commencement week.

Another association of students publishes, weekly, during the school year, the *Orange and Blue*.

The Athletic Association of the college has been formed to encourage and regulate athletic sports. Considerable liberty is allowed the Association in carrying out its purpose. The Association is not allowed, however, to arrange match games with other similar bodies without having secured the consent of the Faculty.

No student who is deficient in rhetorical or classroom work in any term shall be eligible to the office of manager or director in any student organization, or to be a member of any exhibiting organization, or of any contesting athletic team, or of any publishing or editing board during any subsequent term until such deficiency is made up.

HEALTH AND PHYSICAL CULTURE.

GEORGE W. HOSKINS, PHYSICAL DIRECTOR.

The Tustin Gymnasium has been provided for the physical training and development of young men. Young women have opportunity for physical training in the Gymnasium of the institute. These are now provided with the apparatus usually found in well-furnished gymnasiums. The Directors of the Gymnasium examine every student, taking and recording in a book his physical measurements, and prescribe such exercise as may be required for his physical development. Regular exercise in the Gymnasium is required of all students during the winter term.

AIDS AND HONORS.

PRIZES.

The prizes are awarded to the persons who in the judgment of the several committees attain the highest degree of excellence among the respective competitors, but no prize is bestowed unless a high degree of merit has been attained by the person receiving it.

THE PRIZE OF THE CLASS OF '71.

This prize, established by the Class of 1871, is awarded to the student of the Freshman Class who shall prove himself best prepared for College in the two branches, Latin and Mathematics, and who shall have received his preparatory training at Bucknell Academy.

The prize for 1909 was awarded to James Pardon Harris.

THE FRESHMAN DECLAMATION PRIZE.

A prize is awarded to the member of the Sophomore Class who shall excel in declamation at the Annual Contest of the Freshman Class.

The prize for 1909 was awarded to Davis Dale Hollenbaugh.

THE SOPHOMORE DECLAMATION PRIZE.

A prize is awarded to the member of the Sophomore Class who shall excel in declamation at the Annual Contest of the Sophomore Class.

The prize for 1909 was awarded to Fred McAllister.

DECLAMATION PRIZES FOR WOMEN.

Prizes for the best declamation, open for competition to the Sophomore and Freshman Classes, were awarded in 1909 respectively to Florence May Clum and Elizabeth S. Kates.

THE REGISTRAR'S PRIZE.

The Registrar of the University offers a prize to that member of the Junior Class who shall pronounce the best oration at the Junior Exhibition in Oratory.

The Junior oratorical prize was awarded in 1909 to Max Conrad Wiant.

The corresponding prize for Women was awarded in 1909 to Kathalyn Von Huton Voorhis.

THE JUNIOR DEBATE PRIZE.

Prizes are awarded to the two members of the Junior Class who evince superiority in debate at the Junior prize contest.

The prize was awarded in 1909 to George Campbell Fetter and Homer Blaine Hedge.

THE HOLLOPETER PRIZE.

William C. Hollopeter, M. D., Class of 1874, has established an annual prize for excellence in Chemistry, to be awarded to that student at graduation who shall have done the best work in Chemistry, regard being had both to the amount and quality of the work.

The prize was awarded in 1909 to Riley H. Kauffman.

THE HERBERT TUSTIN PRIZE.

In memory of his deceased son, the late Professor Francis Wayland Tustin, Ph. D., of the Class of 1856, paid to the Trustees of the University the sum of five hundred dollars, "as the foundation of the HERBERT TUSTIN PRIZE FUND, the interest of which is to be forever paid annually as two prizes, in the proportion of fifteen dollars for the First Prize, and of ten dollars for the Second Prize, to the two students of the Senior Class who shall have attained the highest and the second highest standing in Psychology and Ethics (under such regulations for the pursuit of these studies as the Faculty of the College shall prescribe from time to time), and whose conduct for the last two years of their course in College shall have been without exception."

The first prize was awarded in 1909 to Alfred T. Poffenberger and the second to Charles C. Fries.

THE HERBERT GOODMAN BARROWS PRIZE.

In memory of his son, the Reverend William Barrows, A. M., of the Class of 1867, paid to the Trustees of the University the sum of five hundred dollars, "as the foundation of the HERBERT GOODMAN BARROWS PRIZE FUND, the interest of which is to be forever paid annually as two prizes of equal amounts to the student or two students of the Senior Class who shall have attained the highest standing, respectively, in the Latin and in the Greek language and

literature (under such regulations for the pursuit of these studies as the Faculty of the College shall prescribe from time to time), and whose conduct for the last two years of their course in College shall have been without exception.”

The prize for excellence in Greek was awarded in 1909 to Gertrude Lillian Turner; the prize for excellence in Latin was awarded in 1909 to Amelia Margaret Wensel.

THE CHAPLAIN J. J. KANE PRIZE.

The Reverend James J. Kane, A. M., Chaplain in the United States Navy, and a graduate from the Theological Department of this University, of the Class of 1867, has established a prize which is to be given annually to that member of the graduating class who delivers the best oration on Commencement Day.

The prize was awarded in 1909 to Charles C. Fries.

THE ANNA MOORE HARE PRIZE.

In memory of his daughter, Anna Moore Hare, the Reverend Calvin Aurand Hare, A. M., has established an annual prize in Logic, to be awarded to that student at graduation who shall have done the best work in Logic, regard being had both to the amount and the quality of the work.

The prize was awarded in 1909 to Doncaster G. Humm.

SCHOLARSHIPS.

I. THE BUCKNELL SCHOLARSHIPS.

The William Bucknell Scholarships, twenty in number and of \$1,000 each, were established for the purpose of aiding worthy young men in securing an education which will increase their usefulness in life. The income from this fund is to be paid annually to twenty young men, in accordance with the rules which will be made known upon application to the Committee of Examination, consisting of the President of the University, H. S. Hopper, Esq., and Professor Rockwood.

II. SCHOLARSHIPS FOR MINISTERS' CHILDREN.

Scholarships upon the general foundation have been established for the children of ministers of the Gospel, of all denominations, in active service.

III. THE LIVINGSTON SCHOLARSHIPS.

Established from a legacy of M. B. Livingston, twenty-two in number, are available for students for the ministry.

IV. THE LONGAN SCHOLARSHIP.

The Longan Scholarship, established from a legacy of O. W. Longan, Esq., is available for a student for the ministry from Lycoming County, Pennsylvania.

V. THE LEWIS E. JONES SCHOLARSHIP.

Was established from a legacy of the late Lewis E. Jones, and is available for students of Welsh descent to the amount of the income from five hundred dollars.

VI. THE JOHN HOWARD HARE SCHOLARSHIP.

Established by the Reverend Calvin Aurand Hare, A. M., in memory of his son, John Howard Hare, available for a student for the ministry upon recommendation of the Pennsylvania Baptist Education Society and the President of the University.

VII. THE VELOLA E. HALL SCHOLARSHIP.

Established by the Reverend Henry Chandler Hall, A. M., Class of 1882, in memory of his daughter, Velola E. Hall, A. B., Class of 1904, available for a student in the Women's College.

VIII. THE MEDICO-CHIRURGICAL SCHOLARSHIP.

The Medico-Chirurgical Medical College of Philadelphia offers a scholarship covering tuition in that college to the student from Bucknell University who evinces the best preparation and aptitude for medical work.

IX. THE PHILADELPHIA ALUMNÆ SCHOLARSHIP.

This scholarship, founded by the Philadelphia Alumnæ Club, is available for a young woman student from Philadelphia.

X. THE GENERAL MILLER SCHOLARSHIPS.

Ten scholarships have been established by Major-General Charles Miller, A. M., to be awarded to worthy members of the graduating class.

XI. ANNUAL SCHOLARSHIPS.

A number of persons have established annual scholarships for the aid of young men or women attending college. Information concerning ministerial and annual scholarships can be obtained from the President of the University.

EXTRA STUDIES.

In order to promote special scholarship in the several departments of study the following provision has been made:

1. Any student who has obtained an average of 9 in the studies of the previous term may take special work in any department of the College under the direction of the Professor of that department.

2. Such work must be assigned by the Professor, and the method of study prescribed by him.

3. If the student shall attain an aggregate average of 9 in all the studies of the current term, and pass a satisfactory examination in the voluntary study, the work shall be credited to him.

4. Only one such study may be pursued by any one student during any one term. A student may also take two such minor studies in the Summer vacation.

5. The Professor with whom the student is working shall have the privilege of requiring a partial examination on the work done at any time during the term, and there may be regular recitations at the Professor's option.

6. The amount and quality of minor work shall be taken into account in awarding honors at graduation, but is not counted toward any degree.

EXPENSES.

The College charges amount to \$120 per annum, for those who room in the College buildings, and \$110 for those who room in the town. The College charges include library fee, gymnasium fee, and other incidental fees common to all students, as well as tuition. Tuition is rated at \$50 per annum, and is included in the College charges. Students in the Course in Civil, Electrical or Mechanical Engineering are charged \$5 per term extra. Students in the other Courses who take an engineering subject are charged the same rates as students in engineering. This charge is for the regular work; when a fourth study is taken, an extra charge of \$10 is made. Graduation fee and diploma, \$10. Masters' Degree and Diploma, \$10.

The Study Rooms in the Main College are so arranged that two students occupy the same study. The Dormitories are intended to accommodate only one person, so that each student has his own private sleeping room. These are furnished with spring bedsteads. The student must supply himself with all other furniture. Students are responsible for damage to their rooms, whether it be done when they are present in the room or absent from it.

If a student occupy a study by himself, the charges for room-rent and private fuel will be doubled.

An extra charge is made for electric lighting of private rooms.

An extra charge ranging from \$5 to \$10 per term is also charged for rooms in the East and in the West College.

An additional charge is made for rooms cared for by the Institution.

Young men in the Collegiate Department, who so desire, can have furnished rooms in the West College, with board in the Academy.

Young women in the Collegiate Department room and board in the Women's College. The standard annual charge for board, tuition, furnished room, heating, lighting, is \$290. An extra charge for choice rooms in the Bucknell Cottage and in New Cottage, ranging from \$5 to \$10 per term, is made.

The assignment of rooms is for one year, and is made the first Monday morning in June, immediately after the devotional exercises in Bucknell Hall. Students from a distance will save inconvenience by applying to the Registrar for a room before the term opens. A deposit of \$10 is required when a room is chosen. This amount is credited upon the regular term bills. Should a student for good reason be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

In the Laboratories students pay for chemicals used and for apparatus broken or damaged. In the chemical laboratory \$5 per term is charged for gas, water, and general chemicals for each course, except Courses 1 and 2, for which the charge is \$2.50. A deposit of \$5 per course is required to cover breakage and cost of extra chemicals.

A small fee is charged also in each of the elective courses in the departments of Mechanics and of Organic Science and in Surveying and Engineering, for the use of instruments and for material used.

Before entering upon the experimental courses students must deposit with the Registrar security for materials used.

These charges must be paid in advance at the beginning of each term.

No student is entitled to his place in his class until he has made settlement with the Registrar.

Students can board in clubs at a cost of from \$2.00 to \$2.50 per week. Boarding can be obtained in private families at \$3.00 or \$4.00 per week, or at the table of the Bucknell Academy at \$3.50 per week. No self-boarding is allowed in the College buildings.

FIFTY-NINTH ANNUAL COMMENCEMENT.

WEDNESDAY, JUNE 23, 1909.

HONORS AT GRADUATION.

ORATIONS SUMMA CUM LAUDE.

HENRY SNARE AFRICA,
EDITH ABBOTT CORLIES,
BELLE EMILY CRAIG,
HAZEL MIRIAM CRAIG,
CHARLES ELSON,
NEWTON CROMWELL FETTER,
CHARLES CARPENTER FRIES,
KATHARINE ELIZABETH HEINEN,
LEON ELLISON JONES,

RACHEL ALLIE KANARR,
CHARLES WYANT KRAMER,
CHARLES JOHN LEPPERD,
EDNA LILLIAN MEACHAM,
ALBERT THEO. POFFENBERGER, JR.,
CHARLES STILWELL ROUSH,
LEONORA MAE SHAMP,
GERTRUDE LILLIAN TURNER,
AMELIA MARGARET WENSEL.

ORATIONS MAGNA CUM LAUDE.

MINNIE ELIZABETH BROBST,
JOHN WARD BROWN,
ALFRED LEE CAREY,
ANNA ROBERTA CAREY,
HELEN DITTING CLIBER,
M. ETHEL COCKBURN,
MARY EVANS,
HARRY ELMER GRESS,

CLARA ELEANOR HARMAN,
JOHN AMMON HESS,
DONCASTER GEORGE HUMM,
RILEY HARRISON KAUFFMAN,
MARY MATILDA MEYER,
ALLAN GERALD RITTER,
IDA MABEL SLOUT,
NALA DAMAYANTI WEBB,

GEORGE NORMAN WILKINSON.

ORATIONS CUM LAUDE.

CARLOS ALVAREZ,
GEORGE FOSTER BAILETS,
THOMAS STEWART BRACKEN,
ANNE FRANCES CHAFFEE,
MYRA MAGARGLE CHAFFEE,
ANSLEY BAILEY CLAYPOOLE,
FRANK HERMAN FRITZ,

EARL GUILFORD GUYER,
MATHEW EMERSON HAGGERTY,
EUNICE VIRGINIA HALL,
MILFORD SCOTT HALLMAN,
JOSEPHINE ADELAIDE HAWKINS,
CHARLOTTE HULLEY,
MARTHA D. LEOPOLD,

ORATIONS CUM LAUDE—Continued.

CHARLES RICHARD MALLERY,
 JOHN HENRY MATHIAS,
 HANNAH BEMIS MERVINE,
 GERTRUDE ADELLA MYERS,
 ALBERT WAFFLE OWENS,
 WILLIAM HARRY POSTEN,

STANLEY HERBERT ROLFE,
 STANTON REINHART SMITH,
 EUGENE VAN WHY,
 SARA ELLEN WALTERS,
 MARY ELIZABETH YOUNG,
 HEBER WILKINSON YOUNGKEN.

DEGREES CONFERRED ON EXAMINATION.

MASTER OF ARTS.

LYNDON ERNEST AYRES,
 GENUS EBERT BARTLETT,
 JOHN GROVER DENNINGER,
 HARVEY O. DIETRICH,
 LINN CLARK DRAKE,
 LYNN SUMNER GOODMAN,

JOHN WALLACE GREEN,
 GRACE GUTHRIE,
 WILLIAM VAN VALZAH HAYES,
 CHARLES FREDERICK KULP,
 CHARLES R. MYERS,
 EDWIN WARREN RUMSEY.

BACHELOR OF ARTS.

MINNIE ELIZABETH BROBST,
 JOHN WARD BROWN,
 ANNA FRANCES CHAFFEE,
 MYRA MAGARGLE CHAFFEE,
 ANSLEY BAILEY CLAYPOOLE,
 HELEN DITTING CLIBER,
 CHARLES ELSON,
 NEWTON CROMWELL FETTER, JR.,
 CHARLES CARPENTER FRIES,
 FRANK HERMAN FRITZ,
 (Jurisprudence),
 FRANK KEMP GIBSON,
 EARL GUILFORD GUYER,
 MATHEW EMERSON HAGGERTY,
 (Jurisprudence),
 JOSEPHINE ADELAIDE HAWKINS,
 CLARA ELEANOR HARMAN,
 KATHERINE ELIZABETH HEINEN,
 DONCASTER GEORGE HUMM,
 (Jurisprudence),

RACHEL ALLIE KANARR,
 WILLIAM LEISER, 3D,
 CHARLES RICHARD MALLERY,
 (Jurisprudence),
 EDNA LILLIAN MEACHAM,
 HANNAH BEMIS MERVINE,
 MARY MATILDA MEYER,
 ALBERT THEO. POFFENBERGER, JR.,
 STANLEY HERBERT ROLFE,
 (Jurisprudence),
 CHARLES STILWELL ROUSH,
 LEONORA MAE SHAMP,
 IDA MABEL SLOUT,
 GERTRUDE LILLIAN TURNER,
 SARA ELLEN WALTERS,
 NALA DAMAYANTI WEBB,
 AMELIA MARGARET WENSEL,
 WARREN TYSON WILSON,
 HEBER WILKINSON YOUNGKEN.

BACHELOR OF PHILOSOPHY.

GEORGE FOSTER BAILETS,	MILFORD SCOTT HALLMAN,
WILLIAM SAMUEL BALDWIN,	GILBERT HARDING LYTE,
AMY VANESSA BOLLINGER,	JOHN HENRY MATHIAS,
M. ETHEL COCKBURN,	WILLIAM HARRY POSTEN,
ALICE ETHEL FOUST,	ALLAN GERALD RITTER,
EUNICE VIRGINIA HALL,	MARY ELIZABETH YOUNG.

BACHELOR OF LITERATURE.

SARA IRENE VAN GUNDY.

DEGREES IN SCIENCE.

I. THE FIRST DEGREE IN GENERAL SCIENCE.

HENRY SNARE AFRICA,	CHARLES EDGAR HILBISH,
HENRY FRANCIS BAILEY,	CHARLOTTE HULLEY,
KATHERINE BECKLEY,	WILMER C. JOHNSON,
THOMAS STEWART BRACKEN,	CHARLES WYANT KRAMER,
ALFRED LEE CAREY,	MARTHA D. LEOPOLD,
ANNA ROBERTA CAREY,	EDWIN IRLAND LAWSHE,
EDITH ABBOTT CORLIES,	ARTHUR EVRIL MCNINCH,
BELLE EMILY CRAIG,	GERTRUDE ADELLA MYERS,
HAZEL MIRIAM CRAIG,	CHARLES O'BRIEN,
MARY EVANS,	ROY HILL PHILSON,
HELGE FLORIN,	KLEINE HARLAN ROYER,
HARRY ELMER GRESS,	MYRTLE HARGRAVE WALKINSHAW,
RALPH GEORGE WINEGARDNER.	

II. THE SECOND DEGREE IN GENERAL SCIENCE.

CHESTER PENN HIGBY,	BLAINE WALTER SCOTT.
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III. THE FIRST DEGREE IN BIOLOGY.

JOHN AMMON HESS,	EUGENE VAN WHY,
STANTON REINHART SMITH,	GEORGE NORMAN WILKINSON.

IV. THE SECOND DEGREE IN BIOLOGY.

HARRY CLAUDE SEILER.

V. THE FIRST DEGREE IN CHEMISTRY.

RILEY HARRISON KAUFFMAN,	DAVID WALTER MOORE,
ALBERT WAFFLE OWENS.	

VI. THE SECOND DEGREE IN CHEMISTRY.

JOSEPH LEWIS COON,

JOHN CLYDE HOSTETTER.

VII. THE FIRST DEGREE IN CIVIL ENGINEERING.

CARLOS ALVAREZ,

GIRTON KELLER LENHART,

JAMES ANDREWS GROFF,

CHARLES JOHN LEPPERD,

CHARLES OSCAR LONG.

VIII. THE FIRST DEGREE IN ELECTRICAL ENGINEERING.

LEON ELLISON JONES.

COMMENCEMENT ADDRESSES.

Baccalaureate Sermon.....	THE PRESIDENT
Sermon, Education Society.....	JAMES HENRY HASLAM, D. D.
Address before the Alumni Association....	RAYMOND W. WEST, D. D.
Poem before the Alumni Association..	BLANCHE ALLYN BANE, A. M.
Annual Address.....	FRANKLIN H. GIDDINGS, LL. D.
Commencement Address.....	THE PRESIDENT

TEACHERS' PERMANENT CERTIFICATES.

Awarded by the State of Pennsylvania to Graduates of Bucknell College, 1908-1909.

WALLACE W. FETZER,	Sunbury, Pa.
WALTER H. BERTIN,	Jersey Shore, Pa.
FRANK L. YOST,	Milton, Pa.
HARRY CLAUDE SEILER,	Milton, Pa.
HENRY JONES,	Plymouth, Pa.
M. LILA LONG,	Williamsport, Pa.
ALICE J. BUTLER,	Wattsburg, Pa.
H. O. DIETRICH,	Kutztown, Pa.
ESTELLA ALBRIGHT,	Mifflinburg, Pa.
MARY M. MEYER,	Rebersburg, Pa.
OTTO W. REICHLY,	York, Pa.
W. D. HINMAN,	Monroeton, Pa.
ANNA ZOE DAVIS,	Carlisle, Pa.
EDNA L. MEACHAM,	Montandon, Pa.
MARY E. YOUNG,	Lewisburg, Pa.
ELIZABETH BRITON MEEK,	Allenwood, Pa.
GEORGE FOSTER BAILABLES,	Lewisburg, Pa.
GRACE MEEK,	Reynoldsville, Pa.

THE ACADEMY

INSTRUCTORS.

JOHN HOWARD HARRIS, PH. D., LL. D.,
PRESIDENT OF THE UNIVERSITY.

BENJAMIN F. THOMAS, A. M., PRINCIPAL,
LATIN.

JOSEPH LINCOLN CHALLIS, A. M.,
HISTORY.

SYDNEY HOMER SMITH, A. M.,
GREEK AND LATIN.

WALTER SAMUEL WILCOX, SC. M.,
MATHEMATICS.

GEORGE NORMAN WILKINSON, SC. B.,
SCIENCE AND GERMAN.

CHARLES CARPENTER FRIES, A. B.
ENGLISH.

JOSEPH MEIXELL WOLFE, A. M.,
REGISTRAR OF THE UNIVERSITY.

ACADEMY STUDENTS

FOURTH FORM.

CLASSICAL COURSE

NAME.	RESIDENCE.	ROOM.
GARDNER WADE EARLE,	<i>Lewisburg.</i>	North Front Street
FRANK RUSSELL HAMBLIN,	<i>Lewisburg.</i>	George Street
WALTER WILLIAM HARRIS,	<i>Lewisburg.</i>	University Avenue

LATIN SCIENTIFIC COURSE.

HUGH ANSLEY LEWIS,	<i>Marion Centre.</i>	No. 11 East Hall
NORMAN MITTERLING,	<i>Lewisburg.</i>	606 George Street
ARTHUR RAYMOND THOMAS,	<i>Lewisburg.</i>	18 East Market Street

SCIENTIFIC COURSE.

CARLETON WALLACE ALLEN,	<i>New Albany.</i>	No. 4, Main Hall
HARRY EARLE CAMPBELL,	<i>Shunk.</i>	No. 21, East Hall
JOHN HUGHSTON CHURCH,	<i>Glen Iron.</i>	No. 12, Main Hall
ROGER DEAN LEACH,	<i>Dalton, R. F. D.</i>	No. 8, East Hall
LEVI ROY LEWIS,	<i>Dalton, R. F. D. 1.</i>	No. 8, East Hall
CARROLL ROLLAND MUFFLY,	<i>Turbotville.</i>	No. 8, West College
JOSEPH HENRY OVARES,	<i>Havana, Cuba.</i>	No. 11, West College

NAME.	RESIDENCE.	ROOM.
NORMAN EDGAR PAGE,	<i>Harrisburg.</i>	No. 21, East Hall
JOHN GRANVILLE SCOUTON, JR.,	<i>Dushore.</i>	No. 10, Main Hall
CLARENCE HENRY SMITH,	<i>Dunbar.</i>	No. 4, West College
HARRY BLAIR SUTTER,	<i>Indiana.</i>	No. 9, East Hall
WILLIAM FRANCIS THORNHILL,	<i>Belington, W. Va.</i>	No. 20, East Hall
DAVID CHARLES WILLIAMS,	<i>Scranton.</i>	No. 5, Main Hall

THIRD FORM.

CLASSICAL COURSE.

CHENEY KIMBER BOYER,	<i>Homestead.</i>	No. 2, East Hall
FREDERICK HARRISON FAHRINGER,	<i>Pottsville.</i>	No. 2, East Hall
MARPLE MEVAY LEWIS,	<i>Collingswood, N. J.</i>	No. 18, West College
DONALD JAMES MACCALMAN,	<i>Lewisburg.</i>	North Third Street
DAVID GEORGE MORSE,	<i>Wilburton, No. 2.</i>	No. 19, East Hall
HAROLD MYATT,	<i>Philadelphia.</i>	No. 9, Main Hall

SCIENTIFIC COURSE.

JACOB HENRY AUSLANDER,	<i>Uniontown.</i>	No. 14, East Hall
CHARLES WARREN BROWN,	<i>Lewisburg, R. F. D.</i>	Lewisburg
EMLLEN QUARLL DOAN,	<i>Berwick.</i>	No. 12, Main Hall
HENRY DWIGHT GALBREATH,	<i>Indiana.</i>	No. 9, East Hall
CLAIRE GEPHART GROOVER,	<i>Lewisburg, R. F. D. 1.</i>	Lewisburg

NAME.	RESIDENCE.	ROOM.
JOHN GRAYDON HARLAN,	<i>Punxsutawney.</i>	No. 13, East Hall
GEORGE ALLISON IRLAND,	<i>Lewisburg.</i>	East Market Street
GEORGE WALTER MUFFLY,	<i>Turbotville.</i>	No. 8, Main Hall
FRANK RICHARD RICE,	<i>Jenningsston, W. Va.</i>	No. 20, East Hall
RUSSELL CONWELL SHIPMAN,	<i>Sunbury.</i>	No. 8, Main Hall
LAURENS MORSE WEDDELL,	<i>Lewisburg.</i>	South Sixth Street

SECOND FORM.

HARRY CARSON BIEHL,	<i>Lewisburg.</i>	West Market Street
WILLIAM JACKSON FOLLMER,	<i>Lewisburg.</i>	122 North Fifth Street
CHARLES MICHAEL FULMER,	<i>Tamaqua.</i>	No. 17, East Hall
AURELIO GAMBOA,	<i>Merida Yucatan, Mexico.</i>	South Sixth Street
JOHN GAMBOA,	<i>Merida Yucatan, Mexico.</i>	South Sixth Street
PAUL MARTIN GEISE,	<i>Sunbury.</i>	No. 6, Main Hall
FREDERICK CHARLES GESSLER,	<i>Indiana.</i>	No. 11, East Hall
PAUL CHARLES HARTER,	<i>Loganton.</i>	No. 22, East Hall
NORMAN RAE HILL,	<i>Newberry.</i>	No. 9, Main Hall
MILLER ALANSON JOHNSON,	<i>Lewisburg.</i>	University Avenue
HERBERT MORRIS KELLOGG,	<i>Lopez.</i>	No. 20, East Hall
JAMES KERSHNER LOEWEN,	<i>Tamaqua.</i>	No. 18, East Hall
EDWARD MALDONADO,	<i>Merida Yucatan, Mexico.</i>	South Sixth Street
CLARENCE AUGUSTINE MILLER,	<i>Franklin.</i>	No. 11, Main Hall

NAME.	RESIDENCE.	ROOM.
GEORGE FUNSTON MILLER,	<i>Lewisburg.</i>	South Second Street
JAMES CLARK MILLER,	<i>Jeanette.</i>	No. 23, East Hall
HARRY WESLEY MOOREHEAD,	<i>Norristown.</i>	No. 32, West Wing
JAMES KANE PETITTE,	<i>Brooklyn, N. Y.</i>	No. 5, Main Hall
RUSSELL PHILIP RAY,	<i>Swissvale.</i>	346 Market Street
SAMUEL LEROY SEEMANN,	<i>Oakmont.</i>	No. 10, East Hall
PERCY BROWN SMITH,	<i>Greensburg.</i>	No. 22, East Hall
WALTER SMITH,	<i>York.</i>	No. 12, West College
ALFRED TENNYSON STEININGER,	<i>Lewisburg.</i>	West Market Street
WILLIAM BLACKFAN WARNER,	<i>Solebury.</i>	No. 32, West Wing
HENRY CHARLES WOLFE,	<i>Lewisburg.</i>	George Street

FIRST FORM.

GEORGE CRASHAW BEDEA,	<i>Shenandoah.</i>	No. 10, Main Hall
VINCENT CANO,	<i>Merida Yucatan, Mexico.</i>	South Sixth Street
DONALD ROSS DUNKLE,	<i>Lewisburg.</i>	East Market Street
MAX W. HORAM,	<i>Lewisburg.</i>	North Second Street
RICHARD KERSHNER LOEWEN,	<i>Tamaqua.</i>	No. 18, East Hall
CHARLES ALFORD MOYER,	<i>Tamaqua.</i>	No. 15, East Hall
WILLIAM EMANUEL PERSING,	<i>Allenwood.</i>	Allenwood
JOSEPH KENNARD WEDDELL,	<i>Lewisburg.</i>	South Sixth Street

STUDENTS PURSUING SELECT STUDIES.

NAME.	RESIDENCE.	ROOM.
CHARLES JACOB APPLGATE,	<i>Catasaqua.</i>	No. 6, Main Hall
JACOB EVANS BOYER,	<i>Linfield.</i>	No. 20, West College
CHARLES ISAAC BROWN,	<i>Shamokin Dam.</i>	Shamokin Dam
FRIEDMAN HOLMES CATHRALL,	<i>West Pittston.</i>	No. 33, East College
JOHN RUSSELL CRISWELL,	<i>Sharpsburg.</i>	No. 10, East Hall
ELMER WORTHINGTON DOUDS,	<i>Ellwood City.</i>	No. 41, West College
WILLIAM HENRY EYSTER,	<i>Fisher's Ferry.</i>	No. 32, East Wing
JOHN FAZEKAS,	<i>Harrisburg.</i>	No. 9, West College
WILLIAM BURT FETTER,	<i>Greensburg.</i>	No. 14, East Hall
WALTER DEMPSTER GEMMILL,	<i>Allenwood.</i>	Allenwood
WILLIAM THOMAS GOODWIN,	<i>Coatesville.</i>	No. 7, Main Hall
LEON CLYDE HOUGHTON,	<i>Lewisburg.</i>	North Eighth Street
HAROLD BRADY JOHNSON,	<i>Weikert.</i>	No. 2, East Hall
WARREN M. JOHNSON,	<i>Lewisburg R. D. 2.</i>	Lewisburg
WILLIAM HENRY JONES, JR.	<i>Shaft.</i>	No. 19, East Hall
HENRY KOPYSKIANSKI,	<i>Shamokin.</i>	No. 17, West College
RAYMOND PIERCE MAHER,	<i>Tower City.</i>	No. 11, East Hall
JULIO MARTIN,	<i>Santa Clara, Cuba.</i>	No. 14, West College
ROBERT OGDEN MILLER,	<i>Altoona.</i>	No. 17, East Hall
RAYMOND FORD NICHOLLS,	<i>Tamaqua.</i>	No. 7, Main Hall

NAME.	RESIDENCE.	ROOM.
WILLIAM JOSEPH POTTS,	<i>Renovo.</i>	No. 13, East Hall
HAROLD EVANS POWELL,	<i>Scranton.</i>	No. 10, West College
ROBERT EMERY READ,	<i>Franklin.</i>	No. 11, Main Hall
HARRISON LEWIS ROCKEFELLER,	<i>Sunbury.</i>	No. 10, West College
SIDNEY MYTON ROSS,	<i>Petersburg.</i>	No. 7, West College
MICHAEL HIRAM WOLFE,	<i>Lewisburg R. D. 1.</i>	Lewisburg

SUMMARY.

The Fourth Form, Classical.....	3
Latin Scientific.....	3
Scientific.....	13
	—19
The Third Form, Classical.....	6
Scientific.....	11
	—17
The Second Form.....	25
The First Form.....	8
Students Pursuing Select Studies.....	26
	—59
Total in the Academy.....	95

Students enrolled in other departments of the University who receive instruction in the Academy classes:

Greek of the Fourth Form.....	6
Third Form.....	7
Latin.....	7
Science Subjects.....	13
Mathematics.....	3
	—36
Total receiving instruction in Academy classes,	131

COURSES OF STUDY.

The Academy is designed to fit pupils for College, for Teaching, or for Business. It offers three Courses of Study.

I. The Classical Course extends through four years and is arranged to meet the requirements for admission to College. The Study of Latin begins with the First Form and continues for four years and two terms. The Study of Greek begins with the Third Form and continues for two years and one term. Notwithstanding the time given to these branches of study, fully one half of the entire course is devoted to English, Historical, Mathematical, and Scientific subjects.

II. The Latin Scientific Course extends through four years and furnishes adequate preparation for either division of the Philosophical Course in College. The First and Second Forms of the Classical and Scientific Courses are identical. In the Third and Fourth Forms, the student preparing for the Latin Division substitutes Historical and Scientific subjects for the Greek of the Classical Course; while the student preparing for the Greek division substitutes the Greek of the Third and Fourth Forms for the Latin and includes Historical and Scientific subjects.

III. The Scientific Course extends through four years and prepares for the Courses in General Science, in Biology, in Chemistry, and in Civil, Mechanical and Electrical Engineering in College. For the Vergil and the Cicero of the Latin Scientific Course, it substitutes one term of Advanced English, one term of Chemistry, and two years of German.

Students who are able to accomplish more work in the allotted time than is required by the Course may pursue honor work in the Classics by reading, under the instructor's direction, Cæsar's Civil War, Cicero's Letters, or Vergil's Eclogues, and Books IV, V, VI of the Iliad, or the Cyropædia.

Students will be admitted to the Form for which they are prepared.

Students who do not intend to enter College, but who desire a comprehensive academic training, will find the Scientific or the Latin Scientific Course well adapted to prepare them for teaching or for business.

Special classes in History and Literature are maintained to meet adequately the requirements of applicants for examination and registration as students at law, under the rules adopted by the Supreme Court of Pennsylvania.

CURRICULA

Arabic numerals indicate the number of recitations a week
in each subject.

I. THE CLASSICAL COURSE.

FIRST FORM.

I. TERM.—Algebra, 5, Latin, 5,	U. S. History, 5, English, 5.
II. TERM.—Algebra, 5, Latin, 5,	English, 5, U. S. History, 5.
III. TERM.—Geometry, 5, Latin, 5,	U. S. History, 5, English, 5.

SECOND FORM.

I. TERM.—Higher Arithmetic, 5, Latin, 5,	Ancient History, 5, Rhetoric, 5.
II. TERM— { Bookkeeping, { Commercial Arithmetic, 5, Latin, 5,	Ancient History, 5, Rhetoric, 5.
III. TERM—Algebra, 5, Cæsar, 5,	Ancient History, 5, Literature, 5.

THIRD FORM.

I. TERM—Algebra, 5, Cæsar, 5,	Greek, 5, Elocution, 5.
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|-------------------------------------|--------------------------------|
| II. TERM—Algebra, 5,
Cæsar, 5, | Greek, 5,
Literature, 5. |
| III. TERM—Algebra, 5,
Cicero, 5, | Anabasis, 5.
Literature, 5. |

FOURTH FORM.

- | | |
|-------------------------------------|----------------------------|
| I. TERM—Geometry, 5,
Vergil, 5, | Cicero, 5,
Anabasis, 5. |
| II. TERM—Geometry, 5,
Vergil, 5, | { Ovid, } 5,
Cicero, } |
| | Iliad, 5. |
| III. TERM—Physics, 5,
Vergil, 5, | Iliad, 5,
Anabasis, 5. |

II. THE LATIN SCIENTIFIC COURSE.**FIRST FORM.**

- | | |
|-------------------------------------|----------------------------|
| I. TERM—Algebra, 5,
Latin, 5, | History, 5,
English, 5. |
| II. TERM—Algebra, 5,
Latin, 5, | English, 5,
Drawing, 5. |
| III. TERM—Geometry, 5,
Latin, 5, | History, 5,
English, 5. |

SECOND FORM.

- | | |
|--|-------------------------------------|
| I. TERM—Higher Arithmetic, 5,
Latin, 5, | Ancient History, 5,
Rhetoric, 5. |
| II. TERM— | |
| { Bookkeeping, | Ancient History, 5, |
| { Commercial Arithmetic, 5, | Rhetoric, 5, |
| Latin, 5, | |

- III. TERM—Algebra, 5, Literature, 5,
Cæsar, 5, Ancient History, 5.

THIRD FORM.

- I. TERM—Algebra, 5, Elocution, 5,
Cæsar, 5,
German, 5, or History of England, 5.
- II. TERM—Algebra, 5, Literature, 5,
Cæsar, 5,
German, 5, or Civics, 5.
- III. TERM—Algebra, 5, Literature, 5,
Cicero, 5,
German, 5, or Botany, 5.

FOURTH FORM.

- I. TERM—Geometry, 5, *German, 5, or French, 5,*
Vergil, 5, *or Physiology, 5,*
Cicero, 5, *or Chemistry, 5.*
- II. TERM—Geometry, 5, { Cicero, } 5,
Vergil, 5, { Ovid, }
German, 5, or Astronomy, 5, or French, 5.
- III. TERM—Physics, 5, *German, 5,*
Vergil, 5, *or French, 5,*
Solid Geometry, 5, *or Geology, 5.*

III. THE SCIENTIFIC COURSE.

FIRST FORM.

- I. TERM—Algebra, 5, History, 5,
Latin, 5, English, 5.
- II. TERM—Algebra, 5, English, 5,
Latin, 5, Drawing, 5.

III. TERM—Geometry, 5,
Latin, 5,

History, 5,
English, 5.

SECOND FORM.

I. TERM—Higher Arithmetic, 5,
Latin, 5,

Ancient History, 5,
Rhetoric, 5.

II. TERM—
Bookkeeping,
Commercial Arithmetic, 5,
Latin, 5,

Ancient History, 5,
Rhetoric, 5.

III. TERM—Algebra, 5,
Cæsar, 5,

Literature, 5,
Ancient History, 5.

THIRD FORM.

I. TERM—Algebra, 5,
Cæsar, 5,

German, 5,
Elocution, 5.

II. TERM—Algebra, 5,
Cæsar, 5,

German, 5,
Literature, 5.

III. TERM—Algebra, 5,
Botany, 5,

German, 5,
Literature, 5.

FOURTH FORM.

I. TERM—Geometry, 5,
Physiology, 5,
or *Chemistry*, 5,

History of England, 5,
German, 5,
or *French*, 5.

II. TERM—Geometry, 5,
Astronomy, 5,

Civics, 5.
German, 5, or *French*, 5.

III. TERM—Physics, 5,
Geology, 5,

German, 5, or *French*, 5,
Solid Geometry, 5.

METHODS OF INSTRUCTION

The Preparatory Curriculum naturally falls into eight principal lines of study, viz.: English, French, German, Latin, Greek, History, Mathematics, and Natural Science. These combine, in due proportion the cultural, the disciplinary, and the practical elements of intermediate education. The two great divisions of modern study, the Classical and the Scientific, are accorded adequate and appropriate preparation. The subjects, facilities, and methods of the various departments are explained below.

I. THE ENGLISH LANGUAGE.

A thorough grounding in the principles of English Grammar is indispensable to the student's progress in the subsequent language studies. The continuous application of this knowledge in Composition, and the constant comparison with the forms and idioms of the Ancient Languages, prepare the way for the study of elementary Rhetoric, and the appreciative reading of English and American Literature. This work is done in the First Form.

In the Second Form a review in the principles of English Grammar is given, and a practical application of the same, together with rhetorical structure in paragraph writing and composition.

In the Third Form the first term is devoted to the study of Elocution, and the remaining two terms take up the study of Literature. The reading and study of the masterpieces of English and American Literature are maintained by means of daily recitations. The work required is identical with the "Scheme of Uniform Entrance Examinations in English Language and Literature," adopted by the "Association of Colleges and Preparatory Schools of the Middle States and Maryland." It comprises (a) careful reading of representative works of certain authors, as literature; (b) thorough study as to "subject-matter, form and structure" of other selections.

II. THE LATIN LANGUAGE.

The Course includes four and two thirds years of Latin, embracing four books of Cæsar, six orations of Cicero, six books of Vergil, and twelve hundred lines of Ovid, besides a complete Course in Grammar and Composition.

Careful drill is given in the declensions and conjugations, in the use of the moods and the sequence of tenses, in the ready reading of the Latin text, in sight reading and in accurate translations into idiomatic English. Attention is given to the important personal, historical, and political elements in the writings of Cæsar and Cicero. In Vergil, the student is introduced to the poetry, legend, religion, and art of Rome. He is taught to investigate the allegorical, archæological, and mythical allusions of the *Æneid*, and to appreciate it as the mirror of the life of the Empire. Latin prosody is taught first from the text, and then from the grammar.

III. THE GREEK LANGUAGE.

The first two terms of the Third Form are spent in a thorough study of White's First Greek Book. In the third term Xenophon's *Anabasis* is read, and special attention is given to acquiring a vocabulary and to the forms and syntax of nouns, pronouns, and adjectives. In the first half of the Fourth Form the reading of Xenophon is continued. During the last half year Homer's *Iliad* is read, and the difference between the Homeric and Attic Forms is noted. Throughout the course, Prose Composition is frequently required for the purpose of acquiring a vocabulary and a knowledge of syntax. The course includes four books of the *Anabasis*, four books of the *Iliad*, besides the Grammar and Prose Composition.

IV. THE GERMAN LANGUAGE.

One year's study of German is required of members of the Third and Fourth Forms of the Scientific Course. The same work may be elected by the members of the corresponding form of the Latin Scientific Course instead of the science subjects of that course. In the study of German, the aim is a thorough acquaintance with declensions and conjugations; facility of pronunciation; quick recognition of words both by the eye and the ear; as extensive a vocabulary as the time will allow; and by constant practice the laying of a foundation for reading, writing, and speaking the language.

V. HISTORY.

The course in History includes a survey of the History of the United States, of England, of Greece, and of Rome. The aim is to acquaint the student with the life, the genius, the institutions, and

the achievements of the respective peoples, and their part in the wider history of mankind.

Additional courses are offered in Ancient, Mediæval, and Modern History, and extra courses in the historical readings required of applicants for examination and registration as students at law by the Supreme Court of Pennsylvania.

Civil Government is taught as a preparation for intelligent citizenship. The origin and growth of our institutions, the functions of the various departments of the National State, and local governments, the political history of the people, the interpretation and construction of the Constitution, are presented and discussed.

VI. MATHEMATICS.

Arithmetic. To students who are fitting themselves for business, a course is given in practical business Arithmetic, involving all the ordinary problems and practices in the business world. To those who are preparing for college or for teaching, instruction is given in the theory and science of Arithmetic. Pupils are expected to master the principles and then to formulate their own rules.

Algebra. The Third Form course extends through one year, and includes a knowledge of the fundamental principles, Factoring, Divisors, and Multiples, Fractions, Equations, Involution, Evolution, Theory of Exponents, Radicals, and Quadratic Equations. Daily blackboard work serves to apply the principles taught. The student is required both to know the methods of the solution of problems and also to explain the operation to the class.

The First Form takes up Algebra for the first two terms. The work is intended to give the pupils a knowledge of algebraic principles and to assist them in their Arithmetic. The third term is devoted to Concrete Geometry and Mechanical Drawing.

Plane and Solid Geometry. The instruction consists in daily recitations for three terms on the Theorems and Problems given in the text-book, with original demonstrations of the same propositions by the students from hints and figures given in the classroom. Besides this, considerable attention is given to the solution of original Propositions, and the application of principles thus learned to the solution of numerical problems.

Bookkeeping. A practical introduction to the science of accounts is secured in the term devoted to mastering the principles of Double Entry Bookkeeping. Careful attention is given

to business forms, to the usages of Banks, and to the elements of Commercial Law. The subject may be pursued in its more extended and intricate applications, as an elective, by properly qualified students.

VII. SCIENCE.

Botany is taught by text-books, field exercise, plant analysis, and weekly lectures. A brief outline is first obtained of plant structure, physiology, growth and reproduction. The subject is then reviewed by daily drill in analyzing, recording, classifying, and preserving specimens. The recorded analysis of fifty plants is required. Lectures explaining special forms of vegetable growth, the flora of this country, the cultivation, uses, and history of plants complete the work.

Physiology. Every effort is made to impart clear ideas of the structure, parts and functions of the human body. Special attention is given to the chemistry of foods, the laws of health, the effects of stimulants and narcotics. Suggestions are constantly made as to poisons and their antidotes, the care of the sick, disinfection and sanitation, and accidents and emergencies. Charts, manikin, and preparations are used in class.

Physics. The student is grounded in the elements of mechanics and physics. The apparatus of the College Laboratory is available for use. The historical beginnings of each subject, and subsequent development, are sketched in brief lectures. No pains are spared to familiarize the pupil with the laws of these sciences, by instruction, experiments, review, and repeated examination. The truth of principles is proved, except where the demonstration involves mathematics of the higher course in College.

Astronomy. Descriptive Astronomy discusses the earth's relations to the solar system, the masses, motions, and orbits of each member of it; the causes and consequences of the motions of the earth; general boundaries of the constellations of the Zodiac and northern heavens; the theories of comets, meteors, and nebulae. Charts, star maps, globes, and other apparatus are used, and the student is afforded privileges of observation in the College Observatory.

Geology. The student masters the elements of lithological, structural, dynamic, and historical Geology. Specimens of various rocks and minerals are handled in class; their composition, characteristics, and place in nature are explained; the structure of

the earth in its present form is studied; the history of its evolution, the age and characteristics of its strata, the chief geological features of each continent, and the forces at work, and that have worked, to produce changes are considered.

VIII. ORATORY.

Class Exercises. Members of the Fourth Form prepare and deliver one original oration each term. All other students have regular exercises in Composition and Declamation throughout the year. Public exercises are held before the faculty and students of the Academy. Visitors are cordially invited to these exercises.

In addition to the private rehearsals for the work above indicated, students in the Third Form receive daily instruction in elocution during the fall term. The course includes careful drill in the Elementary sounds, in Articulation, and in expression; in Analytical Reading, including the Bible and Hymns; and the reading of Shakspeare.

IX. SPECIAL BRANCHES.

Bible Study. The study of the Bible is pursued as a regular weekly recitation throughout the First, Second, and Third Forms, in all Courses of study. A scheme of study is arranged at the beginning of each year. It is intended that the successive schemes for the various years of the course will cover the Life of Christ, the historical portions of the Old Testament forshadowing the Christ, and the history of the Apostolic Church.

The Study of Music may be pursued by Academic students in the School of Music.

Drawing. All students of the Academy may receive throughout the year weekly lessons in Free-hand Drawing and Penmanship without extra charge. Special individual instruction in Drawing in the Art Studio is afforded at twenty-four dollars per annum.

X. HEALTH AND PHYSICAL CULTURE.

The Tustin Gymnasium affords opportunity for physical exercise. The Directors of the Gymnasium give regular class exercises to the students of the Academy. Attendance upon physical training in the Gymnasium is obligatory during the Winter Term.

The Athletic Association of the Academy has been formed to encourage and regulate athletic sports. The Association is allowed to arrange match games with other similar bodies by first securing the consent of the Principal.

PUBLIC EXHIBITIONS.

THIRD FORM.

The Public Exhibition in Declamation by the Third Form will take place on Saturday evening, April 16th, 1910, in Bucknell Hall.

FOURTH FORM.

The closing exercises of the Academy will be the Public Exhibition in Oratory of the Fourth Form, on June 16th, 1910.

Diplomas and Certificates will be conferred Tuesday.

GENERAL INFORMATION

ADVANTAGES.

To the student seeking preparation for College, the Academy offers unusual inducements. Its proximity to the College secures to him an atmosphere of study, acquaintance with the guides and companions of his future course, and the benefit of numerous literary exercises to be found only in College towns. He has access to the College Library and Reading Room. The Academy is designed to fit pupils thoroughly for College and Technical Schools, and to lay broad and solid foundations for all subsequent scholarly culture and for the successful conduct of everyday affairs.

GOVERNMENT.

Students are encouraged to regard self-government as the only true government. It will be the constant endeavor to secure uprightness of character, gentlemanly deportment, and diligent application to work, by kind treatment, and high standards in conduct and study.

I. ADMINISTRATION.

1. The general control of the Academy is vested in the President of the University.

2. The government of the Academy, subject to such control, rests with the Principal of the Academy.

3. The government of each Hall is vested in the Instructor in charge, who resides in the Hall and enforces regulations for the Hours of Study, Academy Property, Hygienic Precautions, and General Deportment, and such other prudential regulations as may be ordered by the joint concurrence of the President of the University and the Principal of the Academy.

4. Each instructor shall have charge of his classes with reference to attendance upon recitations. He shall report to the Principal cases of non-attendance, and inexcusable failure on the part of students to prepare regular lessons or special work assigned.

II. VIOLATION OF RULES.

1. Any officer of the Institution becoming cognizant of any violation of the regulations by any pupil shall report the same to the Principal of the Academy, who shall make a record of the fact in a book provided for the purpose.

2. Every violation of the laws and prudential regulations of the Academy will subject the offender to a penalty of demerits, graded according to the flagrancy and frequency of the offense.

3. When the sum of a pupil's demerits equals ten it shall be the Principal's duty to notify the parent or guardian of the offender, specifying the offense; for every additional ten demerits like notification shall be made.

4. Additional disciplinary penalties in the form of reprimand, "campus," suspension, dismissal, or expulsion, according to the necessities of the case, will follow repeated violations.

BUILDINGS AND ROOMS.

The Academy Buildings are described in detail in the introductory pages of the Catalogue.

The Main Building contains, besides its accommodations for other school and boarding purposes, rooms for students. The rooms are designed to accommodate two students each, and are twenty feet by twelve feet, and fourteen feet high; furnished with new folding beds, washstands, chairs, mirror and table.

The East Hall contains combined study and sleeping rooms, each designed for two students. These rooms are fifteen feet by twelve feet, with high ceilings, and contain two commodious closets and two single wire mattress beds with all necessary furniture.

ARTICLES REQUIRED.

Each student should be provided with an umbrella, overshoes, table napkins, towels, soap, and other articles usually required for personal comfort. All articles for the laundry should be marked with the owner's name.

BOARDING.

All students from a distance will occupy rooms and will board in the Academy, except for reasons jointly satisfactory to the President of the University and the Principal of the Academy.

The Principal and his family, the Instructors, and the Matron live in the building, take their meals with the boarders, and strive in all possible ways to secure the welfare and happiness of the students. The Instructors occupy rooms adjacent to the students' apartments. The appointments of the Dining Room, the character of the table supplies, the household service in general, are designed to furnish the comforts of a first-class boarding house. So far as may be warranted by the deportment of the students, there will be absent from the home life of the school all needless uniformity and irksome limitations, which disregard the reasonable individual preference of pupils.

The Academy gives to furnished rooms daily and complete attention, provides and washes all bedding and bed clothing, and supplies and cares for all lights.

Engagements for board and rooms are expected to continue without change to the end of the school year for which they are made.

APPLIANCES.

The Academy is in possession of excellent apparatus for instruction. A select Reference Library, containing Encyclopedias, Lexicons, Dictionaries, Atlases, and various other helps, is accessible to students at all hours. The Classical Recitation Rooms are provided with Kiepert's Wall Maps of Ancient Geography, and with Reinhard's Album of Ancient Antiquities, mounted. Metric apparatus, Maps and Globes render assistance in other directions.

The apparatus of the College also is accessible to the classes for purposes of experiment and illustration.

The College Library, numbering thirty thousand volumes, is available for all students.

SCHOOLROOM.

In order to insure favorable conditions of study, the Academy maintains a commodious and well-appointed schoolroom. The school life centers in this room. Here, except when engaged in recitations, day students prepare their work, unless excused for a

part of the time, for good cause; here, also, all the younger students of the lower forms prepare for their recitations. Advanced students and those of maturer years, who have acquired habits of independent study, are granted the privilege of preparing part of their work in their rooms, provided that they maintain high scholarship and excellent deportment.

HOURS.

The time devoted to study and recitation amounts to nine hours every week-day, except Saturday, when it is only two hours. This time should be sacred to its purpose. Parents of day pupils are requested to coöperate with the school in securing attention to evening study hours, and to avoid furnishing occasions or granting excuses for absence.

Students from a distance should be in Lewisburg on the day preceding the opening of each term, and no student should leave until the term has closed. Punctuality in attendance is essential to success in school work.

For terms and vacations, see the Calendar of the University.

STANDING AND PROMOTIONS.

The weekly averages of marks for recitations are recorded, and also failures in conduct and attendance. The scale for such markings ranges from 10, or perfect, to 0, or inexcusable failure. Unexcused absences count as zero.

Monthly and term examinations are held in the studies thus far completed, and term reports of the average in scholarship, attendance, and conduct of each student are sent to parents or guardians by the Principal.

No student is promoted to the next higher class whose grade in any study is less than 7.

Students who complete the Preparatory Courses of Study are admitted to standing in corresponding divisions of the Freshman Class in the College, upon the Principal's certificate, without examination.

All students who complete in a satisfactory manner any of the Courses of Study, and who have sustained irreproachable character during their school residence, shall be entitled to the diploma of the Academy.

Students attaining an average standing of 9 are encouraged to take work additional to the Regular Courses of Study.

PRIZES.

THE HARRY S. HOPPER PRIZE.

Mr. Harry S. Hopper, of Philadelphia, Chairman of the Board of Trustees, offers an annual prize for excellence in Composition. This prize for 1909 was awarded to James Focht McClure.

THE REV. DAVID PORTER LEAS PRIZE.

Rev. David P. Leas, of Philadelphia, Treasurer of Bucknell University, offers an annual prize to that member of the Third Form who shall excel in the Annual Exhibition of the Third Form in Declamation.

This prize for 1909 was awarded to Theodore Sapp Owen.

THE WILLIAM E. MARTIN PRIZE.

Principal Thomas offers an annual prize, named in honor of Professor Willam E. Martin, to that member of the Fourth Form who shall pronounce the best oration at the Academic Graduating Exhibition.

This prize for 1909 was awarded to John MacCulloch.

LITERARY SOCIETY.

This is an organization of students for mutual improvement in literary and oratorical exercises. It has a large and convenient hall in the Main Academy Building, where meetings are held on Friday evenings.

RELIGIOUS SERVICES.

The duties of each day are opened with devotional exercises, which all students are required to attend. Devotional exercises are also held every evening, just before the evening study hour. All academic students residing on the University campus are required to attend these exercises.

Regular attendance at Sunday school and upon public worship at some church on Sunday morning, is required; also upon services on Thanksgiving Day, and the Day of Prayer for Colleges. Attendance upon Christian Endeavor or other like Young People's Society, and the mid-week prayer-meetings, while voluntary, is strongly urged upon students.

Parents or guardians are requested to indicate to the Principal the church which they desire their sons or wards to attend.

The Academy students maintain a branch of the Young Men's Christian Association, which holds a weekly prayer-meeting on Tuesday evenings.

EXPENSES OF ACADEMY STUDENTS

	<i>Per Annum.</i>
Tuition, Board, Furnished Room, Heat, Light, Care,	
Washing and Incidentals.....	\$270.00
Tuition and Incidentals to day pupils	85.00

A student engaging a room is required to make a deposit of ten dollars. This amount is credited upon the regular term bills. Should a student for good reason be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

All charges are payable to the Registrar of the University in advance, at the beginning of each term.

No student is entitled to his place in his class until he has made settlement for the term bills.

An extra charge will be made for washing more than twelve pieces per week.

Students who remain in the Academy during the holiday or spring vacation will be charged at the rate of \$5.00 per week. Table boarders will be charged the regular rate, \$3.50 per week.

Free scholarships covering tuition are provided in all the departments of the University for the children of Ministers of the Gospel *in actual service*. Tuition is rated at \$36 a year.

The expenses for Music and Printing for Exhibition and Anniversary occasions are paid by the classes for which such expenses are incurred.

For information respecting the Academy, address the President of the University, or the Principal, Benjamin F. Thomas, A. M.

THE INSTITUTE

INSTRUCTORS AND OTHER OFFICERS.

JOHN HOWARD HARRIS, PH. D., LL. D.,
PRESIDENT OF THE UNIVERSITY.

THOMAS ALPHEUS EDWARDS, A. M.,
DEAN OF THE DEPARTMENT FOR WOMEN,
AND INSTRUCTOR IN PSYCHOLOGY AND ETHICS.

EMMA LOUISE BUSH, A. B., PRECEPTRESS,
TEACHER OF GERMAN.

GRACE SLIFER, A. M.,
TEACHER OF LATIN AND ENGLISH.

MARGARET ELLEN KALP, A. B.,
TEACHER OF ENGLISH AND HISTORY.

EDITH SCHILLINGER,
TEACHER OF ELOCUTION AND GYMNASICS.

PAUL GEORGE STOLZ, B. S.,
INSTRUCTOR IN MUSIC.

BUCKNELL UNIVERSITY

MARY ELIZABETH BOYNTON,
TEACHER OF INSTRUMENTAL MUSIC.

WINIFRED GRACE ISAAC,
TEACHER OF VOCAL MUSIC.

CHARLOTTE S. ARMSTRONG,
TEACHER OF INSTRUMENTAL MUSIC.

ALICE KATHRYN LUTZ,
TEACHER OF VOCAL MUSIC.

LYDIA A. BERKLEY,
TEACHER OF INSTRUMENTAL MUSIC.

GEORGINA K. SCOTT,
TEACHER OF ART.

WALTER SAMUEL WILCOX, M. S.,
TEACHER OF MATHEMATICS.

GEORGE NORMAN WILKINSON, SC. B.,
TEACHER OF SCIENCE.

JOSEPH MEIXELL WOLFE, A. M.,
REGISTRAR.

DIRECTORY OF THE ALUMNAE

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Corresponding Secretary and Treasurer, MRS. DEWEY A. COBB,
3227 Race Street, Philadelphia.

The Dean of the Department for Women will esteem it a favor if any graduate who changes her residence will give notice of her new address. He will also be grateful for any information that will assist in making the directory of the graduates and former students complete.

GRADUATES, CLASS OF 1909.

NAME.	RESIDENCE.
EMMA MINCH CLEMENT,	Mt. Ephraim, N. J.
BESSIE NEWTON CONDICT,	Trenton, N. J.
EUDORA REGINA HAMLER,	Lewisburg
MYRA ALVERNA HIGH,	White Deer
ERNESTINE SUSANNA HYATT,	Lewisburg
OLIVE MARIE LONG,	Lock Haven
BERTHA REED PFLEEGER,	Montandon
LUCILLE SAVIDGE,	Sunbury
KATHERINE ROSE SNYDER,	Lewisburg
ANNETTA AMELIA STAHL,	Lewisburg
MARGUERITE WATROUS,	New York City
BESS SELLERS WEBER,	Centre Hall
MARY GILFILLAN WEISER,	Liverpool
GRACE GETZ WOLFE,	Lewisburg

THE SENIOR CLASS.

NAME.	RESIDENCE.	ROOM.
HELEN KING BARTOL,	<i>Lewisburg.</i>	University Avenue
LOIS MAY BROWN,	<i>Lewisburg.</i>	Lewisburg
HANNAH BARTON BUBB,	<i>Lewisburg.</i>	University Avenue
ANNA KALER DREISBACH,	<i>Lewisburg.</i>	South Third Street
ELLEN WOLFE FOCHT,	<i>Lewisburg.</i>	South Second Street
MARIA AGNES SPYKER,	<i>Lewisburg.</i>	Market Street
LESSIE IRENE ZIMMERMANN,	<i>Lewisburg.</i>	Front Street

THE FOURTH YEAR CLASS.

KATHERINE LARISON BEALE,	Lewisburg
<i>Lewisburg.</i>	
HELEN MAY BROWN,	Lewisburg
<i>Lewisburg.</i>	
MARGUERITE LOUISE DUNCAN,	South Second Street
<i>Lewisburg.</i>	

NAME.	RESIDENCE.	ROOM.
MIRIAM RUTH HOFFA,	<i>Lewisburg.</i>	South Fifth Street
MARY ANNA KUNKEL,	<i>Lewisburg.</i>	Lewisburg
RUTH BARBARA MOHN,	<i>Lewisburg.</i>	South Third Street
MARY EDNA STAROOK,	<i>Lewisburg.</i>	Lewisburg
DOROTHY WOLFE,	<i>Lewisburg.</i>	St. George Street
BERTHA JEANETTE YARGER,	<i>Lewisburg.</i>	Lewisburg

THE THIRD YEAR CLASS.

HELEN SHARPLESS CLARK,	<i>Media.</i>	Women's College
NELLIE M. FOLLMER,	<i>Lewisburg.</i>	North Fifth Street
MARGARET CHRISTINE GRETZINGER,	<i>Lewisburg.</i>	South Sixth Street
MARGARET ELIZABETH GUNDY,	<i>Lewisburg.</i>	North Front Street
MARGARET FAYE HARTER,	<i>Loganton.</i>	Women's College
ANNA MIRIAM HERRMANN,	<i>Dushore.</i>	Women's College
MARGARET MCCLURE,	<i>Lewisburg.</i>	University Avenue
BERTHA MAY NOLL,	<i>Lewisburg.</i>	North Fifth Street
ELEANOR EMMA PROSS,	<i>Lewisburg.</i>	Market Street
RUTH ROYAL,	<i>Camden, N. J.</i>	Women's College

THE SECOND YEAR CLASS.

DARLE FAYE DAVIS,	<i>Allenwood.</i>	Allenwood
ALICE SUSANNA JOHNSON,	<i>Lewisburg.</i>	University Avenue

NAME.	RESIDENCE.	ROOM.
VIRGINIA MOSER,	<i>Youngstown, O.</i>	Woman's College
FLORENCE DALE WOLFE,	<i>Lewisburg.</i>	Lewisburg

THE FIRST YEAR CLASS.

MARY BELLE BROWN,	<i>Lewisburg.</i>	Lewisburg
EDITH VIRGINIA FOCHT,	<i>Lewisburg.</i>	South Second Street
MARY JOSEPHINE WOLFE,	<i>Lewisburg.</i>	South Third Street

PURSUING SELECT STUDIES.

EDNA IRENE ANGSTADT,	<i>Lewisburg.</i>	Lewisburg
MARGARET EDITH BAKER,	<i>Milton.</i>	Milton
MABEL CHRISTIAN,	<i>Bloomsburg.</i>	Women's College
CLARA HARRIET COLLINS,	<i>Scottdale.</i>	Women's College
MAYME ESTELLA DAVIS,	<i>Brookville.</i>	Women's College
LILLIAN E. DUFF,	<i>New Castle.</i>	Women's College
MILDRED MYRTLE FELTY,	<i>Lewisburg.</i>	Lewisburg
MABEL ELIZABETH GRITTNER,	<i>Turbotville.</i>	Turbotville
EVELYN REED HILLIER,	<i>Burlington, N. J.</i>	Women's College
LENA CHARLOTTE JACOBY,	<i>Sunbury.</i>	Sunbury
GRACE JOHNSON,	<i>Northumberland.</i>	Northumberland
JENNIE KATHERINE KERR,	<i>Penn's Creek.</i>	Lewisburg
MARGARET B. MCCLINTOCK,	<i>Wilmington, Del.</i>	South Front Street

NAME.	RESIDENCE.	ROOM.
KATE HYDE McCLOSKEY,	<i>Renovo.</i>	Women's College
RUTH MENTZER,	<i>Port Allegany.</i>	Women's College
MARTHA RANCK,	<i>New Columbia.</i>	New Columbia
GRACE RINGLER,	<i>Watsonstown.</i>	Watsonstown
NELLIE STEVENS,	<i>Sunbury.</i>	Sunbury
MARY ELIZABETH STEVENSON,	<i>Berwick.</i>	Women's College
S. MARGARETTA WAY,	<i>Port Matilda.</i>	Women's College
KATHERINE MAE WILLIAMSON,	<i>Turbotville.</i>	Turbotville

SUMMARY.

Senior Class	7
Fourth Year Class	9
Third Year Class	10
Second Year Class	4
First Year Class	3
Pursuing Select Studies	21
Students in Art and Elocution not otherwise counted	5
<hr/>	
Total	59

COURSE OF STUDY

The Bucknell Institute offers to young women three courses of study, each extending over five years. Students are admitted to advanced standing, if upon examination they are found to have satisfactory knowledge of the branches which the class they propose to enter has already completed.

Credentials from Graded Schools are accepted in the studies of the First and Second Years.

Credentials are accepted for the Third and Fourth Years from schools whose curricula are equivalent to that of Bucknell Institute; also from accredited private teachers, in studies which are *continued* after entrance.

I. THE LITERARY COURSE.

The Literary Course embraces, in MATHEMATICS, Arithmetic, common and advanced, Algebra and Geometry, plane and solid, and Higher Algebra with Trigonometry and Analytical Geometry as electives; in LATIN, four years; in GERMAN, two years, and a third year elective with FRENCH; in FRENCH, one year; and in ITALIAN and SPANISH, an optional course; in SCIENCE, Physical Geography, Botany, Astronomy, Physics, Physiology, Chemistry, and Geology. In these branches the students have the advantages afforded by the College Observatory, Laboratory, and Museum. The course also includes Rhetoric, Composition, Civil Government, Psychology, Ethics, and History of Art.

Special attention is given to History and Literature, to the former of which six and to the latter of which three terms are devoted, besides the reading of English and American authors required for admission to College.

Graduates of the Institute in the Literary Course, upon the completion of eighteen courses of additional work in the College of Liberal Arts, may receive the degree of Bachelor of Arts.

II. THE CLASSICAL COURSE.

The Classical Course embraces, in MATHEMATICS, Arithmetic, Algebra, Geometry, plane and solid, University Algebra, Trigonom-

etry and Analytical Geometry; in LATIN, Grammar and Composition, Cæsar, Vergil, Cicero's Orations, Ovid, Cicero *de Senectute et de Amicitia*, Livy, and Velleius, in all, five years; in GREEK, Grammar and Composition, Xenophon's Anabasis, Homer's Iliad, Lysias' Orations, Plato's Apology, Homer's Odyssey, and the Greek Testament, in all, three years; in HISTORY, General History, and Greek and Roman History.

Students who complete the Classical course are admitted to the Sophomore Class in College as candidates for the first degree in Arts.

III. THE LATIN SCIENTIFIC COURSE.

The Latin Scientific Course corresponds to the Classical course except that scientific subjects are substituted for the first two years of Greek, and German for the third year of Greek.

Students who complete the Latin Scientific course are admitted to the Sophomore Class in College as candidates for the first degree in Philosophy.

Students in the fifth year Classical or Latin Scientific course recite to the professors in the College.

Students who do not wish to pursue a course of study may elect such subjects in connection with recitations of the regular classes as they may be qualified to pursue.

AGE REQUIREMENT FOR ADMISSION.

The required age for admission to the first-year class or to pursue select studies is twelve years, and a proportionate increase of age for admission to advanced classes.

CURRICULA

Arabic numerals indicate the number of recitations a week
in each subject.

I. THE LITERARY COURSE.

FIRST YEAR.

- | | |
|--|--------------------------|
| I. TERM—Algebra, 5,
Latin, 5,
History, 5, | English, 4,
Bible, 1. |
| II. TERM—Algebra, 5,
Latin, 5,
Drawing, 5, | English, 4,
Bible, 1. |
| III. TERM—Geometry, 5,
Latin, 5,
History, 5, | English, 4,
Bible, 1. |

SECOND YEAR.

- | | |
|---|--|
| I. TERM—Higher Arithmetic, 5,
Cæsar, Introduction, 5,
Ancient History, 5, | Rhetoric, 4,
Bible, 1. |
| II. TERM—
<div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> { <div style="display: inline-block; vertical-align: middle;"> Bookkeeping,
 Commercial Arithmetic, 5,
 Cæsar, 5, </div> </div> | Ancient History, 5,
Literature, 4,
Bible, 1. |
| III. TERM—Physical Geography, 5,
Cæsar, 5,
Ancient History, 5, | Literature, 4,
Bible, 1. |

THIRD YEAR.

- | | |
|--|---|
| <p>I. TERM—Algebra, 5,
 Cæsar, 5,
 German, 5, <i>or</i>
 History of England, 5,</p> <p>II. TERM—Algebra, 5,
 Cicero, 5,
 German, 5, <i>or</i>
 Civics, 5,</p> <p>III. TERM—Algebra, 5,
 Cicero, 5,
 German, 5, <i>or</i>
 Botany, 5,</p> | <p>Elocution, 4,
 Bible, 1.</p> <p>Literature, 4,
 Bible, 1.</p> <p>Literature, 4,
 Bible, 1.</p> |
|--|---|

FOURTH YEAR.

- | | |
|---|--|
| <p>I. TERM—Geometry, 5,
 Vergil, 5,
 Cicero, 5,</p> <p>II. TERM—Geometry, 5,
 Vergil, 5,
 { Cicero, } 5,
 { Ovid, } 5,</p> <p>III. TERM—Physics, 5,
 Vergil, 5,</p> | <p>German, 5, <i>or</i>
 Physiology, 5, <i>or</i>
 Chemistry, 5.</p> <p>German, 5, <i>or</i>
 Astronomy, 5.</p> <p>German, 5, <i>or</i>
 Geology, 5.</p> |
|---|--|

SENIOR YEAR.

- | | |
|---|---|
| <p>I. TERM—Psychology, 5,
 English Literature, 5,
 French, 5, <i>or</i>
 German, 5, <i>or</i>
 Solid Geometry, 5,</p> <p>II. TERM—English Literature, 5,
 History of Art, 5,
 French, 5, <i>or</i>
 German, 5, <i>or</i>
 Algebra, 5,</p> | <p>Bible, 1,
 Composition, 1,
 Elocution, 1.</p> <p>Bible, 1,
 Composition, 1,
 Elocution, 1,
 Physical Culture, 5.</p> |
|---|---|

III. TERM—Ethics,

American Literature,

French, *or*German, *or*

Trigonometry,

Bible, 1,

Composition, 1,

Elocution, 1.

II. THE CLASSICAL COURSE.

FIRST YEAR.

I. TERM—Algebra, 5,

Latin, 5,

History, 5,

English, 4,

Bible, 1.

II. TERM—Algebra, 5,

Latin, 5,

Drawing, 5,

English, 4,

Bible, 1.

III. TERM—Geometry, 5,

Latin, 5,

History, 5,

English, 4.

Bible, 1.

SECOND YEAR.

I. TERM—Higher Arithmetic, 5,

Cæsar, Introduction, 5,

Ancient History, 5,

Rhetoric, 4.

Bible, 1.

II. TERM—

{ Bookkeeping,

{ Commercial Arithmetic, 5,

Cæsar, 5,

Ancient History, 5,

Literature, 4,

Bible, 1.

III. TERM—Physical Geography, 5,

Cæsar, 5,

Ancient History, 5,

Literature, 4,

Bible, 1.

THIRD YEAR.

I. TERM—Algebra, 5,

Cæsar, 5,

Greek, 5,

Elocution, 4,

Bible, 1.

- | | |
|--|-----------------------------|
| II. TERM—Algebra, 5,
Cicero, 5,
Greek, 5, | Literature, 4,
Bible, 1. |
| III. TERM—Algebra, 5,
Cicero, 5,
Greek, Anabasis, 5, | Literature, 4,
Bible, 1. |

FOURTH YEAR.

- | | |
|-------------------------------------|--|
| I. TERM—Geometry, 5,
Vergil, 5, | Cicero, 5,
Greek, Anabasis, 5. |
| II. TERM—Geometry, 5,
Vergil, 5, | { Cicero, } 5,
Ovid, }
Iliad, 5. |
| III. TERM—Physics, 5,
Vergil, 5, | Iliad, 5.
Anabasis, 5. |

SENIOR YEAR.

- | | |
|---|---|
| I. TERM—Solid Geometry, 5,
Cicero de Senectute, 5,
{ Odyssey,
Greek Prose Compositions, 5, | Bible, 1,
Composition, 1,
Elocution, 1. |
| II. TERM—Algebra, 5,
Livy, 5,
{ Lysias,
Greek Testament, 5, | Bible, 1,
Composition, 1,
Elocution, 1,
Physical Culture, 5. |
| III. TERM—Trigonometry, 5,
Velleius and Pliny, 5,
{ Plato,
Greek Testament, 5, | Bible, 1,
Composition, 1,
Elocution, 1. |

III. THE LATIN SCIENTIFIC COURSE.**FIRST YEAR.**

- | | |
|---|--------------------------|
| I. TERM—Algebra, 5,
Latin, 5,
History, 5, | English, 4,
Bible, 1. |
|---|--------------------------|

II. TERM—Algebra, 5,	English, 4,
Latin, 5,	Bible, 1.
Drawing, 5,	

III. TERM—Geometry, 5,	English, 4,
Latin, 5,	Bible, 1.
History, 5,	

SECOND YEAR.

I. TERM—Higher Arithmetic, 5,	Rhetoric, 4,
Cæsar, Introduction, 5,	Bible, 1.
Ancient History, 5,	

II. TERM—	
{ Bookkeeping,	Ancient History, 5,
{ Commercial Arithmetic, 5,	Literature, 4.
Cæsar, 5,	Bible, 1.

III. TERM—Physical Geography, 5,	Literature, 4,
Cæsar, 5,	Bible, 1.
Ancient History, 5,	

THIRD YEAR.

I. TERM—Algebra, 5,	Elocution, 4,
Cæsar, 5,	Bible, 1.
German, 5, <i>or</i>	
History of England, 5,	

II. TERM—Algebra, 5,	Literature, 4,
Cicero, 5,	Bible, 1.
German, 5, <i>or</i>	
Civics, 5,	

III. TERM—Algebra, 5,	Literature, 4,
Cicero, 5,	Bible, 1.
German, 5, <i>or</i>	
Botany, 5,	

FOURTH YEAR.

I. TERM—Geometry, 5,	German, 5, <i>or</i>
Vergil, 5,	Physiology, 5, <i>or</i>
Cicero, 5,	Chemistry, 5.

II. TERM—Geometry, 5,
 Vergil, 5,
 { Cicero, } 5,
 { Ovid, }

German, 5, *or*
 Astronomy, 5.

III. TERM—Physics, 5,
 Vergil, 5,

German, 5, *or*
 Geology, 5, *or*
 Solid Geometry, 5.

SENIOR YEAR.

I. TERM—Solid Geometry, 5,
 Cicero de Senectute, 5,
 German, 5, *or*
 French, 5,

Bible, 1,
 Composition, 1,
 Elocution, 1.

II. TERM—Algebra, 5,
 Livy, 5,
 German, 5, *or*
 French, 5,

Bible, 1,
 Composition, 1,
 Elocution, 1,
 Physical Culture, 5.

III. TERM—Trigonometry, 5,
 Velleius and Pliny, 5,
 German, 5, *or*
 French, 5,

Bible, 1,
 Composition, 1,
 Elocution, 1.

METHODS OF INSTRUCTION.

I. PSYCHOLOGY AND ETHICS.

Psychology is taught by text-book and informal lectures. The relation of Psychology to education is made a special feature of the course.

The aim in the Course in Ethics is to make the instruction as practical as possible. Theses on problems in Ethics are required of each student taking the subject, in addition to recitations from text-books.

II. LITERATURE AND ART.

LITERATURE is taught by topical outlines, the elaboration of which depends upon a sympathetic study of the masterpieces in connection with the lives and times of the writers. The subject is so presented that a vital experience results rather than an empty form of knowledge. The object of the course is to cultivate and ennoble the emotions, to stimulate the imagination, and to reinforce the will with strong and exalted motives.

THE HISTORY OF ART is offered in the Senior Year, Literary Course. The aim of the course is to give a general knowledge of the development of art and lead to an acquaintance with individual artists and their work. Some attention is given to the theories concerning the origin of the art-impulse itself, and the law of the mental evolution which has governed the history of art.

III. HISTORY.

History. Six terms are devoted to this study. The course embraces General History, the History of the United States, of England, of Greece, and of Rome. Efforts are made to show the learner that History is not mere facts in chronological order, but a record of the development of civilization.

Civil Government. The origin and growth of our institutions, the functions of the various departments of the National, State,

and local governments, the political history of the people, the interpretation and construction of the Constitution, are discussed.

IV. THE ENGLISH LANGUAGE.

English Grammar. The aim is to train the pupils to speak and write the English language with accuracy and force.

Rhetoric is taught as a practical aid to English Composition. Daily exercises in composition are required.

English Composition is required throughout the course. Classes in Composition meet weekly for general criticism and the assignment of work. One essay is required from each student monthly, and an exercise in rapid and concise writing is required weekly.

V. THE LATIN LANGUAGE.

Paradigms of Declension and Conjugation with the Principles of Syntax, are introduced gradually, after many illustrations. English sentences are translated into Latin, readiness in Latin Composition and a correct style being thus acquired.

The following courses are offered: 1. Latin Grammar and Lessons; 2. Eutropius; 3. Cæsar, Gallic War; 4. Vergil, *Æneid*; 5. Cicero, Orations; 6. Ovid; 7. Cicero, *de Senectute*, and Livy; 8. Livy, Books XXI and XXII; 9. Velleius and Pliny.

VI. THE GREEK LANGUAGE.

The first half of the Third Year is spent in acquiring sufficient knowledge of forms and inflections to commence the study of Xenophon's *Anabasis*. During the last half year, special attention is given to the inflection and syntax of nouns, pronouns, and adjectives. The reading of Xenophon is continued in the first term of the Fourth Year, and the forms and syntax of verbs made a special study. Homer is then read for one term and a half, and the difference between Homeric and Attic forms is noted. During the last half term Xenophon is reviewed, that the student may refresh her knowledge of Attic Greek, and may not find her transition to College needlessly difficult. Almost daily drill is given in turning into Greek, sentences based on the text of Xenophon.

The following courses in Greek are offered to students in the Classical Course: 1. Greek Lessons; 2. Xenophon's *Anabasis*; 3.

Homer's Iliad; 4. Lysias' Orations; 5. Homer's Odyssey; 6. Plato's Apology; 7. Greek New Testament.

VII. MODERN LANGUAGE.

1. French, Italian, and Spanish. The modern languages are taught by comparing them with the mother tongue of the pupil, if there be any relation between them. If there is none, they are compared with the Latin and Greek languages. In French, rules are taught by which the words that are not exactly the same in the two languages are easily made into French.

French Syntax is taught by examples and illustrations from readings. The grammar is taught from the language, and not the language from the grammar.

As far as practical only French is spoken in the classroom. Extracts are read from the best French literature. Conversations are held in French on the readings, stories are related, and compositions prepared in French by the pupil.

The aim is to teach the modern languages so that they can be spoken correctly.

The same method is used in teaching Spanish and Italian.

2. German. In the study of German the aim is to get knowledge of the language in an all-round way. This is accomplished not alone through the study of grammar and the translation of German into English, but by daily practice in conversation, the committing to memory of poems and idioms, and through an acquaintance with biography and the different phases of German life. As little English as practicable is used in the classroom. Throughout the course there is constant sight reading, translation at hearing, and translation from English into German.

The reading of the second year includes the best German authors studied in connection with Keller's History of German Literature.

VIII. MATHEMATICS.

Arithmetic. Two objects are considered in teaching the subject; first, to give the student a practical knowledge of all ordinary business problems and calculations; second, to develop her ability to think logically and rapidly. The memorizing of rules and mechanical processes is not required, but independent

thought, logical analysis and neatness, clearness and accuracy in all written work are demanded. A drill in Mental Arithmetic is combined with the required work of the text-book.

Elements of Algebra. Three terms are given to this subject. There is thorough drill in the fundamental operations, and the idea that these are simply the applications of arithmetical processes to symbols of general value is kept constantly in mind. The course includes Quadratic Equations, Theory of Exponents, Variation, and Series.

Geometry. The course includes Plane and Solid Geometry. Besides the demonstrations of Theorems given in the text-book, original demonstrations and the solution of problems are required.

Higher Algebra. The topics discussed are: Progressions, Theory of Limits, Differentiation, Development of Functions into Series, Convergency and Summation of Series, Logarithms, Compound Interest and Annuities, Permutations and Combinations, Probability, Continued Fractions, and the Theory of Equations.

Trigonometry. The course includes Plane and Spherical Trigonometry. Time is given to the numerical illustrations of principles for the purpose of making sure that the meaning and use of formulæ demonstrated and learned are thoroughly understood.

Analytical Geometry. The student is taught the elementary properties of the right line and the conic sections. The course is intended to give a clear conception of the methods of Cartesian Analysis, rather than extensive knowledge of its results.

IX. SCIENCE.

Physics. The student is thoroughly grounded in the elements of mechanics and physics. The historical beginnings of each subject, and subsequent developments, are sketched in brief lectures. No pains are spared to familiarize the pupils with the laws of these sciences by instruction, experiment, review, and repeated examination. The truth of principles is proved, except where the demonstration involves the higher mathematics. The apparatus of the College is available for class use.

Astronomy. Descriptive Astronomy discusses the earth's relation to the solar system; the masses, motions, and orbits of each member; the causes and consequences of the motions of the earth; general boundaries of the constellation of the Zodiac and Northern

Heavens; the accepted theories of comets, meteors, and nebulae. Charts, star maps, globes, and other apparatus are used, and the student is afforded privileges of observation in the College Observatory.

Physical Geography lays a broad foundation for subsequent work in all sciences. Special attention is given to the physical features of the United States. Drawings, photographs, colored and relief maps, and specimens from the Museum and field work aid to make the subject clear.

Geology. The student is required to master the elements of lithological, structural, dynamic, and historical Geology. Specimens of various rocks and minerals are handled in class; their composition, characteristics, and place in nature are explained; the structure of the earth in its present form is studied; the history of its evolution, the age and characteristics of its strata, the chief geological features of each continent, and the forces at work are considered.

Botany is taught by text-book and field work. A brief outline is first obtained of plant structure, physiology, growth, and reproduction. Lectures explaining special forms of vegetable growth, and the flora of this country, complete the work.

Physiology. Every effort is made to impart clear ideas of the structure, parts, and functions of the human body. Special attention is given to the chemistry of foods, the laws of health, and the effects of stimulants and narcotics. Suggestions are also made as to poisons and their antidotes, the care of the sick, disinfection and sanitation, and accidents and emergencies. The subject is illustrated by the use of a manikin, charts, and preparations.

Descriptive Chemistry is taught by text-books, lectures, and experiments. The object of the course is to give the student a general knowledge of the common elements, their sources, uses, compounds, and behavior toward other elements and compounds, and to drill the student in writing formulæ and solving chemical equations. To accomplish this, each student will be expected to spend at least five hours each week in the Laboratory, studying the characteristics and reactions of the elements and their compounds, and performing the experiments outlined in the text and lectures. Notes will be kept by each student, describing the experiment and giving the equation which represents the reaction taking place.

PHYSICAL CULTURE.

The health of the students is made a prime object of attention, and sanitary requirements are carefully observed. The Institute Gymnasium is furnished with Indian clubs, dumb bells, wands, rings, hoops, guns, wall pulleys, parallel bars, etc., and classes in Physical Culture are organized for the benefit of all students. The exercises practiced are such as tend to develop grace and strength. The Institute Campus of six acres furnishes facilities for exercises. Lawn Tennis and other outdoor games are encouraged and exercise in the open air is required.

ÆSTHETIC CULTURE.

It is intended that the pupils of the Institute shall have the influence unconsciously received from painting, music, and refined surroundings, as well as direct instruction in Literature, Music, and Art. Special instruction in Music and Art is given in the schools devoted to those subjects.

SOCIAL CULTURE.

Pupils are trained to observe the usages of good society. Meetings of various organizations for improvement in Literature, Music, and Art and receptions in charge of the pupils add variety to student life. No effort is spared to give the pupils the advantages of a cultured home. The purpose is to develop the social life of the Institution within itself. Students are not permitted, during term-time, to visit in neighboring towns. The number of social functions during the term is limited, and the consent of the Dean must be obtained for each function at least one month before it is to occur.

RELIGIOUS TRAINING.

The Institute is distinctly Christian in its influence. Morning and evening Chapel in the Hall of the Institute building is attended by all students in the Institute courses, special students, and women pursuing studies in the School of Music. College women living in the Institute attend evening Chapel.

Attendance upon Sabbath school and church services in town is required. All students have weekly recitations in Inductive Bible Study. The students have organized several classes for Scripture study.

The Young Women's Christian Association, a voluntary society open to the officers and students of the Institute, meets weekly. The regular Tuesday evening prayer-meeting, missionary and temperance work, special Bible Classes, are in charge of this Association.

SPECIAL BRANCHES.

1. Italian and Spanish may be taken up as optional studies. All optional studies must be pursued in connection with the regular classes.
2. Bible instruction is given once a week throughout the entire course.
3. Essays are required of all students each month, and themes each week.
4. Two declamations are required of each student during each term.
5. Exercises in either Elocution or Reading are required once a week of all classes.

PUBLIC EXERCISES.

THE EXERCISES OF THE GRADUATING CLASS.

The Commencement Exercises of the Institute are held in the College Commencement Hall on Tuesday afternoon of Commencement week.

THE EXERCISES OF THE FOURTH YEAR CLASS.

The exercises of the Fourth Year Class, a combined musical and literary entertainment, are held in the Chapel of the Institute on the last Saturday evening in the month of April.

THE CONTEST IN ELOCUTION.

A contest in Elocution for the prize in that subject, open to all the members of the Institute, takes place in Bucknell Hall on the second Saturday evening in the month of May.

ALUMNÆ SOCIETIES.

The **Alumnæ Association** holds its anniversary on Monday afternoon of Commencement week.

The **Lewisburg Alumnæ Club** meets at the Institute on the second Tuesday of each month during term-time.

The **Philadelphia Alumnæ Club** is composed of graduates living in and near that city.

STUDENTS' LOAN SOCIETY OF BUCKNELL INSTITUTE.

In June, 1887, there was organized in connection with Bucknell Institute an association of the purpose of assisting young women of limited means to obtain an education. A fund was established by gifts from the Alumnæ and friends of the Institute. The money is loaned to beneficiaries, who obligate themselves to return it, *without interest*, as soon after their graduation as they may be able.

But for the help of this Association, some of the best of our graduates would have been deprived of the training which has fitted them for the positions they now fill as teachers, authors, missionaries, and pastors' helpers.

During the last twenty years fifty-two young ladies received aid. More than one half of these have returned the loan in full.

The annual meeting for the election of officers is held in January.

The payment of one hundred dollars constitutes the donor a Life Member of the Association; five dollars annually, an Active Member.

Contributions should be sent to the Treasurer, Mrs. John T. Judd, Lewisburg, Pa. Any information will be given by the President, Mrs. Katharine B. Larison, Lewisburg, Pa., or Mrs. Calvin A. Hare, Corresponding Secretary, Lewisburg, Pa.

DEPARTMENT OF ELOCUTION.

MISS EDITH SCHILLINGER

This department is open to all members of the Institute. Its aim is the correct and effective utterance of thought. Special attention is given to Voice Culture, Articulation, including Pronunciation and Expression. Weekly Rhetoricals afford opportunity for platform work. Bible reading and study of Shakespere have places in the course. Special courses are offered to students who wish to take private lessons in elocution. Particular attention is given to curing persons of stammering and other defects in speech.

SPECIAL STUDENTS IN ELOCUTION.

NAME.	RESIDENCE.
HELEN KING BARTOL,	Lewisburg
ALBERTA LILLIAN BRONSON,	Girardville
HANNAH BARTON BUBB,	Lewisburg
MILDRED BLACKWELL CATHERS,	Flemington, N. J.
CECIL R. CHILDS,	Truxton, N. Y.
NELSON KENNEDY CROSSMAN,	Whiles Valley
LILLIAN EMMA DUFF,	New Castle
ELLEN WOLFE FOCHT,	Lewisburg
EDITH HARPEL,	Mt. Carmel
MARY JANE IREY,	Danville
GRACE JOHNSON,	Northumberland
ELIZABETH S. KATES,	Millville, N. J.
EMMA ELIZABETH KEISER,	Mt. Carmel
OLIVE MARIE LONG,	Mill Hall
RUTH MENTZER,	Port Allegany
RUTH BARBARA MOHN,	Lewisburg
JENNIE FREDA MOHRING,	Lancaster
DAVID WALTER MOORE,	Milton
PEARL IRENE REAM,	Lewisburg
LOUISA PEARL SHOEMAKER,	Salem, N. J.
MARIA AGNES SPYKER,	Lewisburg
ELIZABETH STAGE,	Clearfield
NELLIE STEVENS,	Sunbury
DOROTHY WOLFE,	Lewisburg

THE ART DEPARTMENT

MISS GEORGINA K. SCOTT.

The facilities for the study of Art have been greatly increased by the accommodations allotted to this Department, in a special studio, which provides such adjustments for admission of light, and unencumbered wall surface as to render it adapted for the execution and display of art productions.

The regular course in Art covers three years, with two lessons a week and daily practice in the Studio. This course offers favorable opportunity for work preparatory to professional study and teaching. It contemplates thorough instruction, both individual and class in the fundamental principles of the subject, black-board work illustrative of the same; also lectures on various phases of the work as they arise, such as perspective, proportion, relation of heights, value of a line, human figure, and theory of color.

The course each year consists of:

A. Drawing—common objects from the flat, or enlargement by scale, antique, floral casts, still life, animals, etc.

B. Design as applied to flat objects.

C. Construction: The consideration of forms in three dimensions, representing solid objects; modeling in clay and wax; pottery and metals.

D. Fine Arts: Realistic treatment of form to its highest degree, through the medium of oils, water-colors, pastels, and china decoration. The work done under this head demands the exercise of all knowledge and training previously gained.

In the division of Fine Arts, students elect one of the four subjects named.

Record is kept of attendance, both upon lessons and practice hours of each week. On the successful completion of the entire course, a certificate of proficiency will be given.

Students who do not desire the certificate course, and whose interest is in Decorative Work, will receive the requisite instruction in the latest methods—China Painting, Tapestry, Dyeing, and Applied Design in other mediums and materials.

Charges for instruction in Art are as follows:

	Per Annum.
Drawing	\$24.00
Crayoning	33.00
Painting in Oil, Water Colors, Pastel, or on China	60.00
	Per Lesson.
Special individual instruction in Painting.....	\$1.00

All bills must be paid to the Registrar of the University, within the first ten days of each term.

Freehand Drawing is a part of the required work of the school without extra charge.

ART EXHIBIT.

On Saturday, Monday, and Tuesday of Commencement week, a display of art products by the pupils of the School of Art is made in the Studio. At this time a committee of Art students receives and entertains all those who visit the Studio.

STUDENTS IN ART.

NAME.	RESIDENCE.
CLARA HARRIET COLLINS,	Scottdale
MAYME ESTELLA DAVIS,	Brookville
NORA ELIZABETH DODSON,	Hazleton
HELEN GROVE,	Lewisburg
STANLEY NEWTON HARRIS,	Lewisburg
ANNA MIRIAM HERRMANN,	Dushore
RUTH BARBARA MOHN,	Lewisburg
ESTHER M. OCKER,	Lewisburg
CHARLOTTE SHIELDS,	Lewisburg
ALIF STEPHENS,	Lewisburg
JESSIE TOWNSEND,	Lewisburg

GENERAL INFORMATION

ADVANTAGES.

The Bucknell Institute offers to young women superior educational advantages. Its location in a University town assures an atmosphere of study and the benefit of numerous literary exercises, lectures, and addresses. The students in the Institute have the use of the Library and apparatus of the Institute, and also of the College Astronomical Observatory, Chemical Laboratory, Museum and Library, and the various apparatus of the University. An isolated school could not provide for itself these advantages at a cost of less than a quarter of a million dollars.

During the year 1905 about forty thousand dollars was expended in enlarging and improving the women's buildings.

ADMINISTRATIVE AND OTHER REGULATIONS.

1. The general control of the Women's College, Institute, and School of Music is vested in the President of the University.
2. The government of the Institute, subject to such control, rests with the Dean.
3. Young women, whether attending the College, Institute, or School of Music, are subject to the rules and regulations governing young women attending the Women's College.

RULES.

The laws governing the Women's College, are enacted by the Board of Trustees and a copy is given to each student when she enters the Institution.

Any officer of the Institute becoming cognizant of violation of regulations by any pupil shall report the same to the Dean, who shall make a record of the fact in a book provided for the purpose. Any second violation by the same pupil shall be reported to the President of the University; and if, in the judgment of the President of the University and the Dean, the offense be of sufficient gravity, the parent or guardian of the offending pupil shall be notified.

Violations of the regulations of the Women's College or infraction of the laws of morality are punished by private reprimand, deprivation of privileges, or private withdrawal from the Institution.

Summary punishment may be inflicted whenever the interests of the Institution demand it.

PRIZES

I. BUCKNELL PRIZES.

The following prizes were founded by William Bucknell, of Philadelphia:

1. A First Senior Prize, to be awarded to the member of the graduating class who, being excellent in scholarship during the Senior Year, shall prepare the best essay.

2. A Second Senior Prize, to be awarded to the member of the graduating class who, being excellent in scholarship during the Senior Year, shall prepare the second best essay.

For the year 1909 the First Prize of twenty-four dollars was awarded to Myra Alverna High, and the Second Prize of sixteen dollars to Eudora Regina Hamler.

3. A Third Senior Prize to be awarded to the member of the graduating class who shall attain the highest grade in the studies of the Senior Year. This excludes all grades of studies not in the Senior Year, all Senior Studies taken before the Senior Year, and all studies not taken in the Institute.

For the year 1909 this prize of twenty-five dollars was awarded to Myra Alverna High.

4. A First Fourth Year Prize, to be awarded to the member of the Fourth Year Class who, being excellent in scholarship during the year, shall prepare the best Fourth Year essay.

5. A Second Fourth Year Prize, to be awarded to the member of the Fourth Year Class who, being excellent in scholarship during the year, shall prepare the second best Fourth Year essay.

For the year 1909 these prizes were awarded as follows: Lois May Brown received the First Prize of twenty dollars; Helen King Bartol the Second Prize of fifteen dollars.

The fund consists of \$2,000, the income from which is to be devoted to these prizes annually in a manner more particularly defined in the donor's communication to the Trustees.

Themes for the Bucknell Essay Prizes will be drawn from the following works:

For 1910 Shakespere's Macbeth, Scott's Marmion, Tennyson's Idylls of the King, Lamb's Essays of Elia.

II. THE ELOCUTION PRIZE.

A prize in Elocution is offered to the student who shall give the best recitation at the Annual Contest.

For 1909 the prize was awarded to Miss Katharine Rose Synder.

EXPENSES OF INSTITUTE STUDENTS

I. Boarding Students. The regular charge for Boarding Students is \$270.00 per annum; the other expenses, spending money, books, and clothing, will vary with the individual student.

An additional charge will be made when one student occupies a double room alone in the Main Building. Extra charge will also be made for front corner rooms in the West Wing.

Students are charged extra for the washing of dresses, and for the washing of more than twelve pieces per week.

For the rooms in the Bucknell Cottage and in New Cottage there is an extra charge, depending on the location.

Students from a distance will save inconvenience by applying for a room before the term opens. A deposit of ten dollars is required when a room is chosen. This amount is credited upon the regular term bills. Should a student for good reason be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

Students will be charged for damage done to furniture or to the room they occupy.

II. Day Students. The charges for Day Students amount to \$85.00 per annum.

III. Extra Studies. The charges for Elocution, Drawing and Painting, and Music will be found under those titles.

All bills must be paid within the first ten days of each term.

Checks and drafts should be drawn in favor of the Registrar of the University.

No bill will be made out for a shorter period than one term; and no deductions will be made, except in the charge of board, in case of a prolonged absence on account of sickness.

The expenses for Music, Printing, and other charges ordinarily incurred at Examination and on anniversary occasions, are paid by the class or classes which incur the expenses.

The fee for Graduation and Diploma is \$5.00.

Free scholarships, covering tuition, are awarded to children of Ministers of the Gospel *in actual service*.

For information respecting the Institute, address the Dean of the Department for Women, Thomas A. Edwards, A. M., or the President of the University.

BUCKNELL SCHOOL OF MUSIC.

THOMAS ALPHEUS EDWARDS, A. M.,
DEAN.

MARY ELIZABETH BOYNTON,
PIANO, VIRGIL CLAVIER.

WINIFRED GRACE ISAAC,
HARMONY AND VOCAL MUSIC.

ALICE KATHRYN LUTZ,
ASSISTANT IN VOCAL MUSIC.

CHARLOTTE S. ARMSTRONG,
VIOLIN AND PIANO.

LYDIA A. BERKLEY,
PIPE ORGAN, AND PIANO.

GRADUATES, 1909.

NAME.	COURSE.	RESIDENCE.
RUTH HOLDEN BERGSTRESSER,	<i>Piano, Harmony, History of Music.</i>	Milton
ALICE LOUISE CHAPPELL,	<i>Violin, Harmony, History of Music.</i>	Scranton
HAZEL MIRIAM CRAIG,	<i>Pipe Organ, Harmony, History of Music.</i>	Philadelphia
PEARL R. DEYOE,	<i>Piano, Pipe Organ, Harmony, History of Music.</i>	New Haven
MYRA ALVERNA HIGH,	<i>Voice, Harmony, History of Music.</i>	White Deer
MABEL ELIZABETH JOHNSON,	<i>Piano, Harmony, History of Music.</i>	Mt. Carmel
NELLE I. KOBBE,	<i>Piano, Voice, Harmony, History of Music.</i>	Picture Rocks
JANET STEELE MENCH,	<i>Pipe Organ, Harmony, History of Music.</i>	Mifflinburg
ELEANOR BELLE NIXON,	<i>Piano, Pipe Organ, Harmony, History of Music.</i>	Uniontown
JESSIE M. PURSELL,	<i>Piano, Pipe Organ, Harmony, History of Music.</i>	Muncy
BERTHA IRENE REED,	<i>Piano, Harmony, History of Music.</i>	Sunbury
MAUDE ELEANOR RINGLER,	<i>Piano, Pipe Organ, Harmony, History of Music.</i>	Mifflinburg
HALLIE BELLE SEMBOWER,	<i>Piano, Pipe Organ, Harmony, History of Music.</i>	Uniontown.
ADA ROSALIE SWARTZ,	<i>Voice, Harmony, History of Music.</i>	Altoona
IDA KATHERINE WILLIAMS,	<i>Piano, Harmony, History of Music.</i>	Reynoldsville

NAMES OF STUDENTS

NAME.	COURSE.	RESIDENCE.
EDNA IRENE ANGSTADT,		Lewisburg
	<i>Piano, Harmony.</i>	
KATHERINE ETHEL BAILEY,		Wellsboro
	<i>Piano.</i>	
MARGARET EDITH BAKER,		Milton
	<i>Piano.</i>	
GEORGE T. BENDER,		Lewisburg
	<i>Piano.</i>	
HANNAH CECIL BERTIN,		South Williamsport
	<i>Voice.</i>	
FREDERICK WILLIAM BREIMEIER,		Trevorton
	<i>Violin.</i>	
ADA ETHEL BROOKS,		Wellsboro
	<i>Piano.</i>	
MILDRED BLACKWELL CATHERS,		Flemington, N. J.
	<i>Violin.</i>	
MABEL CHRISTIAN,		Bloomsburg
	<i>Piano, Harmony.</i>	
HELEN SHARPLESS CLARK,		Media
	<i>Piano.</i>	
CLARA HARRIET COLLINS,		Scottdale
	<i>Piano, Voice, Harmony.</i>	
MAYME ESTELLA DAVIS,		Brookville
	<i>Piano, Voice, Harmony.</i>	
SARAH MARIE DERR,		Lewisburg
	<i>Piano.</i>	
LILLIAN EMMA DUFF,		New Castle
	<i>Piano.</i>	
MILDRED MYRTLE FELTY,		Lewisburg
	<i>Piano.</i>	
JEANETTE FUNK,		Milton
	<i>Voice.</i>	
NORMAN M. GATES,		Lewisburg
	<i>Violin.</i>	

NAME.	COURSE.	RESIDENCE.
MARGARET CHRISTINE GRETZINGER,	<i>Piano.</i>	Lewisburg
MABEL ELIZABETH GRITTNER,	<i>Piano, Voice.</i>	Turbotville
FRANCES LLOYD GROFF,	<i>Piano.</i>	Lewisburg
CARRIE MAY GRUGAN,	<i>Piano, Harmony.</i>	West Milton
HELEN HARE,	<i>Piano.</i>	Lewisburg
MARGARET FAY HARTER,	<i>Piano.</i>	Loganton
ANNA MIRIAM HERRMANN,	<i>Piano.</i>	Dushore
EVELYN REED HILLIER,	<i>Piano, Harmony.</i>	Burlington, N. J.
S. KATHRYN HOPPER,	<i>Voice.</i>	Lewisburg
ERNESTINE SUSANNA HYATT,	<i>Violin.</i>	Lewisburg
LENA CHARLOTTE JACOBY,	<i>Voice, Harmony.</i>	Sunbury
MABEL ELIZABETH JOHNSON,	<i>Pipe Organ.</i>	Mt. Carmel
ALICE SUSANNA JOHNSON,	<i>Piano.</i>	Lewisburg
JENNIE KATHERINE KERR,	<i>Piano.</i>	Penn's Creek
EMMA ELIZABETH KEISER,	<i>Voice.</i>	Mt. Carmel
MARY ANNA KUNKEL,	<i>Piano.</i>	Lewisburg
LEAH ELIZABETH LINDIG,	<i>Piano.</i>	Lewisburg
OLIVE MARIE LONG,	<i>Piano.</i>	Mill Hall
MARGARET B. MCCLINTOCK,	<i>Piano.</i>	Wilmington
KATE HYDE McCLOSKEY,	<i>Piano, Violin, Harmony.</i>	Renovo
MARY LOUISE MARSH,	<i>Piano.</i>	Lewisburg

NAME.	COURSE.	RESIDENCE.
SARA E. MEYER,	<i>Piano.</i>	Rebersburg
ALICE MARINDA MORNINGSTAR,	<i>Piano.</i>	Milton
VIRGINIA MOSER,	<i>Voice.</i>	Youngstown, O.
JEANETTE OWENS,	<i>Piano.</i>	Lewisburg
WEAVER WEDDLE PANGBURN,	<i>Voice.</i>	Elizabeth
HARTLEY C. POWELL,	<i>Voice.</i>	Salem, N. J.
ELEANOR EMMA PROSS,	<i>Piano.</i>	Lewisburg
MARTHA ELLEN RANCK,	<i>Piano.</i>	New Columbia
THOMAS BOWER REED,	<i>Violin.</i>	Milton
GRACE G. RINGLER,	<i>Piano.</i>	Watsontown
EVA MAY RITTENHOUSE,	<i>Piano.</i>	Scottdale
CHRISTINE K. ROUSH,	<i>Piano.</i>	Milton
RUTH ROYAL,	<i>Piano, Pipe Organ.</i>	Camden, N. J.
KATHRYN MARIE RYAN,	<i>Voice.</i>	Asbury Park, N. J.
MARGARET ELLEN SMITH,	<i>Guitar.</i>	Lewisburg
SUSAN CAROLINE SNYDER,	<i>Piano.</i>	Allentown
ANNETTA AMELIA STAHL,	<i>Voice.</i>	Lewisburg
ELIZABETH STEPHENS,	<i>Piano.</i>	Lewisburg
ALIF STEPHENS,	<i>Piano.</i>	Lewisburg
MARY ELIZABETH STEVENSON,	<i>Piano, Pipe Organ, Harmony.</i>	Berwick
L. W. STOUT,	<i>Guitar.</i>	Audubon, N. J.

NAME.	COURSE.	RESIDENCE.
SARA MARGARETTA WAY,	<i>Piano, Voice, Violin, Harmony.</i>	Port Matilda
WINIFRED WERKHEISER,	<i>Piano, Harmony.</i>	West Milton
C. A. WHEELER,	<i>Harmony.</i>	Sunbury
DAVID CHARLES WILLIAMS,	<i>Pipe Organ.</i>	Seranton
KATHERINE MAY WILLIAMSON,	<i>Piano.</i>	Turbotville
DOROTHY WOLFE,	<i>Piano.</i>	Lewisburg

SUMMARY.

Piano	46
Pipe Organ	4
Voice	13
Harmony—History of Music	18
Violin, Viola, Mandolin, Guitar	11
<hr/>	
Total Lessons	92
Total Pupils	65

COURSES OF STUDY

The School of Music is under the general supervision of the Dean of the Department of Women, but has its own corps of instructors, each a specialist in his line. The courses are designed to afford every needed facility for the study of Vocal and Instrumental Music. An ample supply of instruments from the best makers is provided for practice.

INSTRUMENTAL MUSIC.

COURSE FOR THE PIANO-FORTE OF FOUR YEARS FOR GRADUATION.

The pupil is required to pursue the most thoroughly approved modern system of technical training. After the first rudiments have been mastered, the course of instruction leads to the practice of *études*, designed to unite with purely technical drill the requirements of artistic style and expression.

PIANO.

FIRST YEAR.

Musical Exercises and Gymnastics to prepare the hands for playing; Gurlitt, *Technic and Melody*, Book I; Kohler, *Practical Method*; Lebert and Stark, *Instruction Book*, Part I; Loeschorn, Op. 84 and 65; Kohler, Op. 157; Duvernoy *School of Mechanism*, Op. 120; *Etudes* by Biehl, Lemoine, LeCouppéy, Bertini and Czerny; introductory technical work; Sonatines, Kuhlau, Clementi, Schytte; pieces by Behr, Bohm, Lange, Lichner and others.

SECOND YEAR.

Heller, *Studies*, Op. 45, 46 and 47; Loeschorn, Op. 66; Czerny, Op. 299; Berens, Op 61; Easier Mozart, Haydn, Beethoven Sonatas; Little Preludes by Bach; Bach Inventions, Scales, Arpeggios and

other technical work continued; Salon pieces by Bendel, Kullak, Merkel, Nevin and other composers; preparatory octave and chord work.

THIRD YEAR.

Czerny, Op. 740; Cramer, 50 Studies; Clementi Gradus ad Parnassum; Moscheles, Op. 70; Bach Suites, Handel Suites, Scarlatti pieces, Beethoven Sonatas; introductory Chopin work; compositions by Grieg, Godard, MacDowell, Moszkowski and others; continued octave and chord work.

FOURTH YEAR.

Bach Preludes and Fugues; Italian Concerto; Chromatic Fantasy and Fugue; Kullak Octave Studies; Selected Chopin Etudes; Liszt Studies; Beethoven Sonatas, Op. 53 and 57; Other compositions by Chopin, Liszt, Schumann, and selected works by Tausig, Moszkowski, Saint-Saens, Brahms and Rubinstein.

The outline is necessarily quite elastic and will adjust itself to the individual ability, requirements and purposes of each student.

COURSE FOR PIPE ORGAN.

This course is based upon:

Dudley Buck's Pedal Studies, and upon the works of Rink, Batiste, Lefébure-Wely, Guilmant, and others.

COURSE FOR THE VIOLIN.

The course is based upon:

The methods of Wohlfhast, Shubert and others for elementary students; the first part of De Beriot's School; Thirty-six Studies, Kayser; De Beriot's Second and Third Positions; Mazas Etudes Specials; Hermann's One Hundred Studies; Violin School; Ovide Musin; Bowing Studies, Casorti; Forty Studies, Kreutzer; Thirty-six Etudes, Fiorvilla. Pieces and solos by the best writers for the instrument are used throughout the course to develop style, phrasing, etc. Sonatas by Beethoven, Gade, Grieg and others, and concertos of Rode and Viotti are required for graduation.

COURSE FOR THE VIOLONCELLO.

Instruction for this instrument is based upon:

Méthode Pratique pour le Violoncello, par S. Lee; studies by Piatti and Romberg.

COURSE FOR THE VIOLA.

Bruni's Methods and Studies, by Campagnoli.

COURSE FOR CONTRABASSO (DOUBLE BASS).

Bottesini's Method.

VOICE CULTURE.

COURSE OF THREE YEARS FOR GRADUATION.

Careful instruction is given in the use of the voice, and the correct manner of producing purity of tone. To secure control over the voice and gain for it flexibility, fullness, and durability, thorough drills are afforded in such technical exercises as:

Lamperti's and Vannuccini's Italian Methods, Vocalises of Sieber, Concone, Tütgen, Vaccai, Bonaldi, Bordogni, Marchesi, and Ponafka; Lamperti's Studies in Bravura Singing. For expression and the development of a pure style, practice is afforded in singing the best English, German, Italian, and French Songs, Operatic Arias and Solos from the Oratorios.

Careful instruction and drill are given in sight-singing; and all students seeking to complete the course in Voice Culture are expected to acquire reasonable proficiency in this branch of the art of music.

COURSE IN HARMONY.

The study of Harmony is included in the other musical work, and a sound knowledge of its principles is required of all graduates of the School of Music. The text-books used are: Bussler's Harmonic Exercises, Homer Norris's Practical Harmony, Richter's Counterpoint, and Reicha's Course of Musical Composition, or equivalents.

THE ORCHESTRA.

CLASSES FOR ALL ORCHESTRAL INSTRUMENTS.

Students who are sufficiently advanced in any of the above musical instruments will have opportunity of practice in string quartettes, trios, concertos, and symphonies of Beethoven, Mozart and Haydn.

RECITALS.

Frequent recitals in the presence of the faculty and students of the School of Music and their friends are held to accustom students to playing in public, and for mutual improvement.

On the Friday evening prior to Commencement week a public recital of the School of Music is held in Bucknell Hall.

The public examination of those who desire certificates of proficiency is held in Bucknell Hall the Saturday afternoon before commencement. At this time each pupil plays or sings two pieces of high grade, and reads an essay on some subject connected with music.

TUITION.

Extra tuition is charged for instruction in Music, as follows:

Per Annum.

Vocal Music	\$60 00
Music on Piano or Organ.....	60 00
Harmony, in Class.....	18 00
Harmony, in private lessons.....	60 00
Use of Instruments for practice.....	10 00
Guitar, in Class.....	15 00

Per Lesson.

Special individual instruction in Music.....	\$1 00
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No reduction is made except in case of protracted illness.

Instruction in the Orchestra and in Harmony is free to pupils otherwise studying music.

Payment strictly in advance at the beginning of each term.

RESIDENCE OF MUSIC PUPILS.

Pupils in music reside in the Women's College and are under the care of the Dean of the Department for Women. Students pursuing any of the Institute courses can also take studies in music. Those who wish to make music a specialty are recommended to take at least one study each term in Language or Literature.

The regular charges for pupils in music, residing in the Institute, including one literary subject per term, are \$225 per annum. This *does not* include charges for instruction in music, which are determined by the number of lessons taken per week.

GRADUATION IN MUSIC.

Students who complete any of the Courses in Music and pass the examination, receive a certificate of proficiency. Students will not be taken as Seniors in Music until they have passed an examination before a committee consisting of members of the faculty and other appointed judges. Besides the examination before the Committee for admission to the Senior Class, students will be required to pass a preliminary examination at the opening of the spring term, and a final examination before Commencement week. Students will not be admitted to the final examination unless they have passed the preliminary examinations.

THE AVIRAGNET PRIZE.

Friends of the late Elysée Aviragnet have endowed a prize for excellence in Music. For 1909 this prize was divided between Miss Ruth Bergstresser and Miss Eleanor Nixon.

GENERAL REGULATIONS.

Young ladies attending upon the School of Music are subject to the administration and other regulations enacted by the Board of Trustees for the government of students in the Women's College. Students of Music are also entitled to all the privileges of the Women's College.

For information respecting the School of Music, address the President of the University, or the Dean, Thomas Alpheus Edwards.

UNIVERSITY CALENDAR

1910

Second Term Ends,.....Thursday, March 24

SPRING RECESS.

Third Term Begins,.....Thursday, March 31
 Sermon before the Christian Association,.....Sunday, April 10
 Declamation of the Third Form, Academy,.....Saturday, April 16
 Exercises of the Fourth-Year Class, Institute,

Saturday, April 23

Contest in Elocution, Institute,.....Saturday, May 7
 Exhibition of the Junior Class, College,.....Friday, May 13
 Examinations,.....Tuesday to Friday, June 17
 Exhibition, School of Music,.....Friday, June 17
 Baccalaureate Sermon,.....Sunday, June 19
 Sermon before the Education Society,.....Sunday, June 19
 Examinations for Admission to College,.....Monday, June 20
 Meeting of the Alumnae of the Institute,.....Monday, June 20
 Annual Meeting of the Trustees,.....Tuesday, June 21
 Annual Meeting of the Alumni,.....Tuesday, June 21
 Graduation of the Fourth Form, Academy,.....Tuesday, June 21
 Graduating Exercises of the Institute,.....Tuesday, June 21
 Oration before the Alumni,.....Tuesday, June 21
 ANNUAL COMMENCEMENT, the 60th,.....Wednesday, June 22

SUMMER VACATION.

Fall Examinations for Admission to College,
 Wednesday, September 21
 First Term Begins,.....Thursday, September 22
 Reception by Christian Association,.....Saturday, September 24
 Introductory Address,.....Monday, September 26
 Matriculation,Monday, November 21
 Thanksgiving (recess of three days),.....Thursday, November 24
 First Term Ends,.....Wednesday, December 21

1911.

Second Term Begins,.....Tuesday, January 3
 Second Term Ends,.....Thursday, March 23
 Third Term Begins,.....Tuesday, March 28

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Philadelphia

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THE
Bucknell University Bulletin
LIBRARY

TENTH SERIES

JANUARY, 1911

NO. 4

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CATALOGUE

1910-1911

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THE
SIXTY-FIRST CATALOGUE

OF THE
OFFICERS AND STUDENTS

OF
Bucknell University:

COLLEGE OF LIBERAL ARTS

FOR THE YEAR 1910-1911

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SUMMARY OF ATTENDANCE.

The College of Liberal Arts	516
The Academy for Young Men	73
The Institute for Young Women	67
The School of Music for Both Sexes	94
Total (deducting names repeated)	686

CALENDAR.

The Winter Term Ends.....	Wednesday, March 22, 1911
The Spring Term Begins.....	Wednesday, March 29, 1911
Annual Commencement.....	Wednesday, June 21, 1911
The Fall Term Begins.....	Thursday, September 21, 1911
The Fall Term Ends.....	Wednesday, December 20, 1911
The Winter Term Begins.....	Tuesday, January 2, 1912

BUCKNELL COLORS: Orange and Blue.

BUCKNELL YELL: Yah, yah, yoo! Bucknell B. U.!

Wah, hoo, hoo wah, Bang!

PLAN AND PURPOSE OF THE UNIVERSITY

CORPORATE RIGHTS.

The University was incorporated with full university powers by the Legislature of Pennsylvania, in an Act approved by the Governor on the fifth day of February, 1846. The management of the University is committed to a Board of Trustees, which is self-perpetuating. The trustees are prohibited, for any cause or under any pretext whatever, from encumbering by mortgage or otherwise the real estate or any other property of the institution. It is required by charter that no religious sentiments are to be counted a disability to hinder the election of an individual to any office among the teachers of the institution, or to debar persons from attendance as pupils, or in any manner to abridge their privileges or immunities as students in any department of the University.

ENDOWMENT.

The total property of the institution exceeds one million dollars. The productive investment amounts to over seven hundred thousand dollars. This money has been the gift of several hundred persons. Among the benefactors of the institution (including only those who have given ten thousand dollars or more) have been: DAVID JAYNE, JOHN PRICE CROZER, WILLIAM BUCKNELL, SAMUEL A. CROZER, HARRY SAMUEL HOPPER, HARRIET BUCKNELL HOPPER, JOHN D. ROCKEFELLER, CATHARINE A. WENTZ, CHARLES MILLER, JOHN J. CARTER, HENRY KIRKE PORTER, DAVID PORTER LEAS, ANDREW CARNEGIE.

THE MILLION-DOLLAR MOVEMENT.

The Board of Trustees at its meeting in January, 1903, authorized an effort to increase the endowment by one million dollars. It is expected to obtain this sum by gifts and legacies.

FORMS OF GIFTS.

To persons wishing to give money for the education of the young, the following forms of beneficence are suggested:

(a) Departments can be endowed for \$100,000 and upward.

(b) Professorships can be endowed for \$50,000 each.

(c) Fellowships can be endowed for \$10,000 each.

(d) Scholarships can be endowed by a gift of \$1,000 to \$5,000 each, the income to be given toward the expenses of the student. The income is estimated from the average income of the funds of the Institution, and is applied only in the year in which it falls due.

(e) A loan fund has been established. The interest from this is loaned to students, the principal being kept intact. In this way a large, active loan fund accumulates.

(f) A fund for the retirement of professors who, after long service, have, through age or infirmity, become unable to render further efficient service.

Each of these forms of beneficence will bear and perpetuate the name of the donor or of the person designated by him.

FORM OF BEQUEST.

To persons desiring to aid in increasing the efficiency of the schools in their work of preparing young men and young women for usefulness, the following form of bequest is recommended:

I give and bequeath to the Bucknell University, at Lewisburg, Pennsylvania, the sum of.....Dollars for the general purpose of said school, according to the Act of Assembly incorporating the same.

Or if for a special purpose:

I give and bequeath to the Bucknell University, at Lewisburg, Pennsylvania, the sum of.....Dollars for the establishment of a department, professorship, fellowship, scholarship, loan fund, or retirement fund, to bear and perpetuate the name of.....forever.

ORGANIZATION.

The University comprises four schools :

I. THE COLLEGE offers nine Courses of study, each of four years, and each leading to the appropriate degree :

1. The Classical Course.
2. The Philosophical Course.
3. The Course in Jurisprudence.
4. The General Science Course.
5. The Course in Biology.
6. The Course in Chemical Engineering.
7. The Course in Civil Engineering.
8. The Course in Electrical Engineering.
9. The Course in Mechanical Engineering.

II. THE INSTITUTE for young women has three Courses of study, the Literary, the Classical, and the Scientific, leading to diplomas which admit to the Sophomore year in College.

III. THE ACADEMY is designed to fit young men for College, either for the Classical, Philosophical, Scientific, or Technological Courses.

IV. THE SCHOOL OF MUSIC has full Courses in instrumental and vocal music, and grants diplomas to those who complete any of the specified Courses.

These schools are one corporation, have one President, who has general charge, with a Principal in more immediate charge of each of the subordinate departments. All expenses are met from funds in the hands of a common treasurer.

THE BOARD OF TRUSTEES.

CHAIRMAN, HARRY S. HOPPER, A. M.,

28 South Third Street, Philadelphia.

SECRETARY, A. JUDSON ROWLAND, D. D., LL. D.,

1701 Chestnut Street, Philadelphia.

TREASURER, DAVID PORTER LEAS, A. M.,

400 South Fortieth Street, Philadelphia.

ASSISTANT TREASURER, CALVIN A. HARE, A. M., Lewisburg.

RALPH A. AMERMAN, ESQ.

HON. E. A. ARMSTRONG, A. M.

JOHN P. CROZER, A. M.

COL. JOHN J. CARTER, A. M.

MILTON G. EVANS, D. D.

PRES. JOHN H. HARRIS, LL. D.

HARRY S. HOPPER, A. M.

PRES. LINCOLN HULLEY, LL. D.

MR. JOHN D. JOHNSON.

DAVID PORTER LEAS, A. M.

CRAIGE LIPPINCOTT, ESQ.

*HON. SIMON P. WOLVERTON, LL. D.

HON. HAROLD M. McCLURE, A. M.

GEN. CHARLES MILLER, A. M.

GEORGE M. PHILIPS, PH. D., LL. D.

A. JUDSON ROWLAND, D. D., LL. D.

HON. JOSEPH C. SIBLEY, LL. D.

LEROY STEPHENS, D. D.

JAMES S. SWARTZ, A. M.

HON. F. J. TORRANCE, A. M.

HON. ERNEST L. TUSTIN, A. M.

MR. CHARLES S. WALTON.

JOSEPH K. WEAVER, A. M., M. D.

MEETINGS OF THE BOARD.

The annual meeting is held on Tuesday of Commencement Week, at Lewisburg.

The semi-annual meeting is held on the second Tuesday in January in Philadelphia.

* Deceased.

COMMITTEES OF THE BOARD.

COMMITTEE ON INSTRUCTION.

A. JUDSON ROWLAND, D. D., *Chairman.*

MILTON G. EVANS, D. D. HON. SIMON P. WOLVERTON, LL. D.
REV. LEROY STEPHENS, D. D. HON. ERNEST L. TUSTIN, A. M.
GEORGE M. PHILIPS, PH. D., LL. D. RALPH A. AMERMAN,
AND THE PRESIDENT.

COMMITTEE ON FINANCE.

JAMES S. SWARTZ, A. M., *Chairman.*

DAVID PORTER LEAS, A. M. JOHN P. CROZER, ESQ.
HARRY H. HOPPER, A. M. HON. JOSEPH C. SIBLEY, LL. D.
JOSEPH K. WEAVER, M. D. HON. E. A. ARMSTRONG, A. M.
HON. FRANCIS J. TORRANCE, A. M. CHARLES S. WALTON,
AND THE PRESIDENT.

COMMITTEE ON BUILDINGS AND LIBRARY.

HON. HAROLD M. McCLURE, A. M., *Chairman.*

CRAIGE LIPPINCOTT, ESQ. PRES. JOHN H. HARRIS, LL. D.
HON. SIMON P. WOLVERTON, LL. D. COL. JOHN J. CARTER, A. M.
GEN. CHARLES MILLER, A. M.

COMMITTEE ON PUBLICATION.

LEROY STEPHENS, D. D., *Chairman.*

DAVID PORTER LEAS, A. M. MILTON G. EVANS, D. D.
AND THE PRESIDENT.

THE UNIVERSITY PROPERTY

I. THE MAIN COLLEGE.

The main College building is situated on a hill one hundred feet above the Susquehanna River, and overlooks scenery of unsurpassed beauty. It was designed by Thomas U. Walter, LL. D., architect of the dome and wings of the Capitol at Washington, D. C., and is in the Grecian style, combining dignity and simplicity. The building has a façade of three hundred and twenty feet. The central portion is eighty feet square, and is strengthened in front by four massive columns. On the first floor are six recitation rooms. On the second floor are the halls of the Theta Alpha and Euepia Literary Societies, and Museum of Natural History.

In the third story is Commencement Hall, with a seating capacity of fifteen hundred.

The wings on the eastern and western sides, respectively, of the Main Building, are each one hundred and twenty feet in length and four stories in height, and are used for students' rooms.

Several thousand dollars have been expended recently in improving the College building.

II. THE WEST COLLEGE.

The West College was erected in the year 1900. It is constructed of brick, four stories in height, trimmed with brownstone, and contains ninety-seven rooms, one of which is a hall for the use of the Young Men's Christian Asso-

ciation, and the others are designed for the residence of students.

III. THE EAST COLLEGE.

The East College is a building of brick, trimmed with brownstone. The first story is assigned to the Electrical Laboratory and Physical Laboratory, with a floor surface of some thirty-five hundred square feet, and to recitation rooms. The attic story with a floor surface of some six thousand square feet is used for draughting rooms. The other four stories contain one hundred and twelve rooms for students.

IV. THE BUCKNELL HALL.

Bucknell Hall is the Chapel of the College. In it all the students of the College meet daily for worship.

V. THE CARNEGIE LIBRARY BUILDING.

The library building was given by the Honorable Andrew Carnegie, D. C. L., in the year 1905.

The building is sixty-four feet by ninety, built of pressed brick, and trimmed with brownstone. The center, thirty feet by ninety, is used as a reading room. At the height of sixteen feet there is a gallery extending around the room. The sides, each fifteen feet by ninety, are divided on the first floor into rooms for special collections and for offices. The second and third floors will be used for stack rooms. The building will accomodate about one hundred and fifty thousand volumes.

VI. THE OBSERVATORY

The Observatory was erected in 1887 and enlarged in 1905. It is designed for the use of students in Practical Astronomy.

The equipment represents the latest improvements in astronomical instruments. It consists of a Clark Equatorial Telescope of ten inches aperture and twelve and one half feet focal length, furnished with a fine position Micrometer and all the usual accessories; a Spectroscope with prism and grating by Brashear; a three-inch prismatic Transit, with a thirteen-wire movable Micrometer; a Fauth Chronograph with Bond Spring Governor; a Waldo Precision Clock for sidereal time, with mercurial compensation, break circuiting apparatus; Daniell's battery and telegraph sounders; a Seth Thomas Clock for solar time; a Sextant; a three-inch Altitude Azimuth Refractor; a set of Meteorological instruments; Celestial globes and maps, and standard works on Theoretical and Practical Astronomy.

VII. THE CHEMICAL LABORATORY.

The Laboratory was erected in 1890, and is a building forty-three feet in width and eight-six feet in length, with two stories above the basement. In the first story, which has a clear height of fifteen feet, are a lecture room, with seating for one hundred and twenty-five students, and a large working room, in which are tables for individual work in Chemical Analysis; the second floor contains a lecture room and rooms for laboratory work in Organic Science; the basement has rooms for Applied Chemistry, and a fire-proof room. The attic contains a room for dissection in Human Anatomy.

VIII. THE PHYSICAL LABORATORY.

The Physical Laboratory was erected in 1902. It is a building of two stories, fifty by sixty, constructed of brick trimmed with brownstone. The basement serves for the heating and lighting plant of the institution; the main

story, with one room twenty by fifty and another forty by forty-five, is used for shop work.

IX. THE TUSTIN GYMNASIUM.

The basement of the Gymnasium is built of stone, and contains an office for the director, rooms for students, lockers, dressing rooms, and shower baths. The second story is built of brick, rising twenty-two feet from the main floor to the square, and is open to the roof. At the height of twelve feet a running-track gallery, six feet wide, surrounds the room.

X. THE ATHLETIC FIELD.

The field is conveniently located at the foot of "College Hill," and has been graded and fitted up for outdoor sports. In the northwest corner, at the main entrance to the College grounds, a shaded section has been set aside for tennis. The athletic field is sufficiently large for football, baseball, and lacrosse. A running track, a quarter-mile in length, has been constructed on the eastern part of the campus. The Tustin Gymnasium is located at the end of the field, so as to be near to the center of exercise, and easily accessible to the trainers and students.

XI. THE ACADEMY.

1. **The Main Building** of the Academy is situated on "College Hill," and is fifty feet in width by eighty feet in length, and three stories in height. On the first floor is a dining room, thirty feet by thirty-six feet; two recitation rooms, a reception room, and the Principal's office; on the second floor are suites of rooms for the Principal and his family and for the Matron. The third floor is used for students' rooms, each twenty feet by twelve feet, and fourteen feet high.

2. **The East Hall** of the Academy is the Bucknell Cottage for young men, and is contiguous to the Main Building and connected with it by a covered passageway. It is of brick, three stories high, sixty feet in length and forty feet in width, and is finished in natural wood. The building contains a general study room, a recitation room, teachers' apartments, and rooms for students. The rooms have high ceilings, large double windows with inside shutters, and two commodious closets each.

Both buildings are supplied with hot and cold water, are warmed by steam, and lighted by electricity.

XII. BUILDINGS OF THE WOMEN'S COLLEGE.

The buildings and campus of this department are set apart for the use of women taking courses in the College, in the Institute, and in the School of Music.

1. **The Main Building** contains, on the first floor, an office for the Dean and the Registrar, a reception room, the office of the Director of Music, music rooms, recitation rooms, and a dining hall; on the second floor a school-room and a parlor; on the third floor, a library room, teachers' apartments, and students' rooms. The main building was enlarged, 1905, by an addition to the dining hall.

2. **The South Hall**, erected in 1869, is devoted to students' rooms, except the third story, which is used as a gymnasium. This gymnasium has been lately improved and equipped.

3. **The Bucknell Cottage** stands to the southwest of the Main Building, and is connected with it by an enclosed passageway. It is built of brick, in the Queen Anne style of architecture, and has dimensions of forty feet by one hundred feet. The interior is finished in natural wood,

and is equipped, in matters of light, heat and ventilation, with modern improvements.

The portion allotted to students' rooms affords accommodations for forty occupants. These rooms are in suites on the general plan of a center parlor, with bedrooms and closets on either side. In this building is the **Studio**, a spacious room with such adjustments for the admission of light and supply of unencumbered wall surfaces as adapt it for the execution and display of art products.

4. New Cottage for women, with a front of one hundred and twenty-eight feet and a depth of forty feet, rising three stories above the basement, was erected in 1905. It contains eighty-seven rooms.

The Calisthenium occupies the upper story, and has a floor surface of over four thousand feet.

All the buildings are supplied with hot and cold water, are warmed by steam, and lighted by electricity.

5. The Campus of the Women's College is separated from the main College grounds by Loomis Street.

XIII. HEATING AND LIGHTING PLANT.

A central steam heating and electric lighting plant has been erected; all the rooms, public and private, in the several buildings of the Institution, are warmed and lighted from this plant.

XIV. THE PRESIDENT'S HOUSE.

The Corporation also owns a house for the use of the President of the University.

THE COLLEGE.

THE FACULTY AND OTHER OFFICERS.

JOHN HOWARD HARRIS, PH. D., LL. D., PRESIDENT,
AND PROFESSOR OF PSYCHOLOGY AND ETHICS.

* FREEMAN LOOMIS, A. M., PH. D.,
PROFESSOR OF MODERN LANGUAGES AND LITERATURE.

WILLIAM CYRUS BARTOL, A. M., PH. D.,
PROFESSOR OF MATHEMATICS AND ASTRONOMY.

FRANK ERNEST ROCKWOOD, A. M., LL. D.,
PROFESSOR OF THE LATIN LANGUAGE AND LITERATURE AND DEAN OF
THE COLLEGE.

WILLIAM GUNDY OWENS, A. M.,
PROFESSOR OF CHEMISTRY.

ENOCH PERRINE, A. M., LITT. D.,
PROFESSOR OF THE ENGLISH LANGUAGE AND LITERATURE AND
SECRETARY OF THE FACULTY.

THOMAS FRANKLIN HAMBLIN, A. M., LL. D.,
NEW JERSEY PROFESSOR OF THE GREEK LANGUAGE AND LITERATURE.

WILLIAM EMMET MARTIN, A. M., L. H. D.,
PROFESSOR OF SOCIOLOGY AND ANTHROPOLOGY.

* Retired.

BUCKNELL UNIVERSITY

NELSON FITHIAN DAVIS, SC. D.,
PROFESSOR OF BIOLOGY.

EPHRAIM M. HEIM, PH. D.,
PROFESSOR OF ECONOMIC AND POLITICAL SCIENCE.

GUIDO CARL LEO RIEMER, A. M., PH. D.,
PROFESSOR OF MODERN LANGUAGES.

LLEWELLYN PHILLIPS, A. M., D. D.,
JOHN P. CROZER PROFESSOR OF RHETORIC AND ORATORY.

CALVIN AURAND HARE, A. M.,
PROFESSOR OF CHRISTIAN EVIDENCES AND LOGIC.

THOMAS ALPHEUS EDWARDS, A. M.,
PROFESSOR OF PEDAGOGY AND DEAN OF THE DEPARTMENT FOR WOMEN.

HENRY THOMAS COLESTOCK, A. M., PH. D.,
PROFESSOR OF HISTORY.

CHARLES ARTHUR LINDEMANN, A. M.,
PROFESSOR OF APPLIED MATHEMATICS.

FRANK MORTON SIMPSON, SC. M.,
PROFESSOR OF PHYSICS AND MECHANICAL DRAWING.

WALTER KREMER RHODES, A. M., E. E.,
PROFESSOR OF ELECTRO--TECHNICS.

FLOYD GEORGE BALLENTINE, PH. D.,
ASSISTANT PROFESSOR OF LATIN.

FRANK EUGENE BURPEE, A. M.,
ASSISTANT PROFESSOR OF MATHEMATICS.

MARTIN LINNAEUS DRUM, A. M.,
ASSISTANT PROFESSOR OF MATHEMATICS.

NORMAN HAMILTON STEWART, A. B., SC. M.,
ASSISTANT PROFESSOR OF BIOLOGY.

BROMLEY SMITH, A. M.,
INSTRUCTOR IN ORATORY AND RHETORIC.

BENJAMIN W. GRIFFITH, A. M.,
INSTRUCTOR IN FRENCH.

LEO LAWRENCE ROCKWELL, A. M.,
INSTRUCTOR IN GERMAN.

KARL GLYCART, SC. M.,
INSTRUCTOR IN CHEMISTRY.

HAROLD MURRAY McCLURE, A. M.,
PRESIDENT JUDGE, SEVENTEENTH JUDICIAL DISTRICT,
LECTURER ON CONTRACTS AND PARTNERSHIPS.

ALBERT WILLIAM JOHNSON, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON REAL AND PERSONAL PROPERTY.

CLOYD NILLIS STEININGER, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON BILLS AND NOTES AND ON AGENCY.

WILLIAM EMMET MARTIN, A. M., L. H. D.,
LIBRARIAN.

JOSEPH MEIXELL WOLFE, A. M.,
REGISTRAR OF THE UNIVERSITY.

REV. CALVIN AURAND HARE, A. M.,
FINANCIAL SECRETARY.

FRANK EUGENE BURPEE, A. M.,
SUPERINTENDENT OF BUILDINGS AND GROUNDS.

ADMISSION OF STUDENTS.

TO FRESHMAN STANDING.

EXAMINATIONS.

Examinations for admission to the Freshman Class are held on Monday of Commencement week. Candidates will assemble in Bucknell Hall at 8.30 A.M.

Similar examinations are also held on the day preceding the opening of each year. In special cases candidates may be examined and admitted at other times in the year.

There must be furnished to the President by the candidate satisfactory testimonials of good moral character, and, if from another college, a certificate of honorable dismissal must be presented. But no student from another college will be admitted except at the beginning of the Academic year.

The required age for admission to the Freshman Class is fifteen years.

I. GENERAL REQUIREMENTS.

Candidate for admission to any of the courses must pass examinations in the following:

1. ENGLISH.

a. Writing from dictation.

b. English Grammar.

c. Elements of Rhetoric—Invention, Style, and Punctuation.

d. A brief composition upon a subject assigned at the time of the examination. No candidate will be accepted in English whose work is notably defective in spelling, punctuation, idiom, or division into paragraphs.

e. **Reading.**—The books set for reading are those designated by the College Association of the Middle States and Maryland. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple

questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books. In preparation for this part of the requirement, it is important that the candidate shall have been instructed in the fundamental principles of Rhetoric.

f. Study and Practice.—This part of the examination presupposes the thorough study of each of the works named by the College Association. The examination will be upon subject-matter, form, and structure.

The candidate is advised to do reading parallel and subsidiary to these books; he is recommended to commit to memory as much English poetry as possible, and to pay close attention to the essentials of Grammar.

2. MATHEMATICS.

- a.* Arithmetic, including the Metric System;
- b.* Algebra, including Quadratic Equations. The requirements in this study include the treatment of Radicals.
- c.* Plane Geometry.

3. LATIN.

- a.* Latin Grammar;
- b.* Latin Prose Composition;
- c.* Four books of Cæsar's Commentaries.

4. HISTORY.

- a.* History of Greece;
- b.* History of Rome.
- c.* History of the United States.

5. SCIENCE.

- a.* Physiology;
- b.* Physics;
- c.* Geography—Descriptive and Political, and Physical.

6. FREE-HAND DRAWING.

II. PARTICULAR REQUIREMENTS.

A. To enter the Classical Course, the candidate, in addition to the General Requirements, must pass examinations in the following:

1. GREEK.

- a.* Greek Grammar;
- b.* Greek Prose Composition;
- c.* Greek Reader;
- d.* Four Books of Xenophon's *Anabasis*;
- e.* Three Books of Homer's *Iliad*.

2. LATIN.

- a.* Seven Orations of Cicero;
- b.* Six Books of the *Æneid*;
- c.* Ovid, 1200 lines.

B. To enter the Latin division of the Philosophical Course, or the Course in Jurisprudence, the candidate, in addition to the General Requirements, must pass examination in the following:

1. LATIN.

- a.* Seven Orations of Cicero;
- b.* Six Books of the *Æneid*;
- c.* Ovid, 1200 lines.

2. Any six units selected from group E.

2. To enter the Greek division of the Philosophical Course, the candidate, in addition to the General Requirements, must pass examination in the following:

1. GREEK.

- a.* Greek Grammar;
- b.* Greek Prose Composition;
- c.* Greek Reader;
- d.* Four Books of Xenophon's *Anabasis*;
- e.* Three Books of Homer's *Iliad*.

2. Any six units selected from group E.

D. To enter the General Science Course, the Course in Biology, the Course in Chemistry, or the Course in Civil, in Mechanical or

in Electrical Engineering, the candidate, in addition to the General Requirements, must pass examination in the following:

1. GERMAN OR FRENCH.

The Grammar of the Language, Composition, and Translation at sight of easy prose (three units).

2. SOLID GEOMETRY.

3. Any eight units selected from group E.

E. Candidates for admission to the Philosophical Course or to the Scientific Courses must present in the case of the former, six units, in case of the latter, eight units, selected from the following:

English Literature, History of Modern Europe, History of England, Civics; Zoölogy, Physiography, Botany, Geology, Astronomy; Solid Geometry, Chemistry with Laboratory Practice; French (three units); German (three units).

The time requirement for a unit is five hours a week for a term of twelve weeks.

The requirements for admission to the various Courses amount to the work of a High School with a four years' course.

ADMISSION ON CERTIFICATE.

Graduates of Bucknell Institute, in any of the Courses, will be admitted to the Sophomore year of the corresponding Course in the College.

Graduates from Bucknell Academy, in any of the Courses, will be admitted to the corresponding Courses in the College upon the Diploma of the Academy.

Graduates of Pennsylvania State Normal Schools are admitted to the General Science Course without examination.

Certificates of the College Entrance Examination Board are accepted for admission, and also certificates of the State Board for Examination of Candidates for registration as Students of Law, and Regents' certificates of New York State.

Students who have graduated in a four years' Course of study in **Preparatory and High Schools** of superior standing may be admitted upon the certificate of the Principal of the school from which they come without examination upon the subjects specified in the certificate.

All students received upon certificate are regarded as in conditional standing, and will not be matriculated unless their work during the first ten weeks of the term shows that their preparation has been sufficiently thorough.

SPECIAL STUDENTS.

Students who do not desire to take a full regular course can enter and select special shorter courses with the sanction of the Faculty; but in all cases, satisfactory examinations must be passed upon the subjects required for admission to the Freshman Class of the Course from which they intend to select.

ADVANCED STANDING.

I. General Requirements. A proportionate increase of age is required for admission to advanced classes over that required for admission to Freshman standing. Other general requirements are the same as for admission to the Freshman Class.

II. Particular Requirements. Candidates for admission to advanced classes are examined both as for admission to Freshman standing and also on the studies that have been pursued by the class which they desire to enter.

MATRICULATION.

Matriculation gives membership in the College and is a condition precedent to all degrees and honors as well as to honorable dismissal. No student is admitted to matriculation until he has shown by his class work during at least ten weeks and by his deportment that he is worthy of membership in the College.

HONORABLE DISMISSION.

No person will be dismissed from the College as in good standing who leaves it while under censure; and papers of dismissal given to those leaving while under a condition shall distinctly mention the condition; nor will honorable dismissal be granted to

any student who has not discharged all his pecuniary obligations to the Institution. No papers of dismissal or of grades will be granted to a student who has not completed one year of work; nor are credits certified except for work done in class in this College. All certificates of dismissal are signed by the President of the University and sealed with the corporate seal, and no others are valid.

No certificate or statement as to work done in his department is granted by any professor or instructor to an undergraduate.

COURSES OF STUDY.

The Bucknell College offers nine courses of study leading to degrees in Arts, Philosophy, and Science. Each of the Courses extends through four years. For the Bachelor's degree, thirty-six courses, each of one term five hours a week, must be presented, as well as the prescribed work in oral and written Expression, the former of which extends through two years of the course and the latter through four years, and also twelve lecture courses.

I. The Classical Course, leading to the degree of Bachelor of Arts, aims to furnish a liberal education in classical and modern Literature, in the Sciences and Arts. Candidates for the degree of Bachelor of Arts must present at least three courses in German or French.

II. The Philosophical Course, with Latin or Greek in each of its two divisions, aims to furnish a thorough training in advanced studies to those who desire to pursue but one of the Ancient Languages. Those who have completed the studies of the Course, including not less than four courses of German and French, are admitted to the degree of Bachelor of Philosophy. But a candidate in the Philosophical Course who offers nine College courses in either of the Ancient Classical languages or nine College courses in a Modern language in addition to the required work in Latin or Greek may receive the degree of Bachelor of Arts.

III. The Course in Jurisprudence, leading to the degree of Bachelor of Arts, covers four years of work in Law, Political Science, Economics, Philosophy, History, Literature, and Mathematics. The course in Jurisprudence is designed for persons preparing for the legal profession, for a business career,

and for participation in public affairs. No one is graduated from this Course if his average standing for the Course is below nine.

IV. The General Science Course, leading to the degree of Bachelor of Science, is substantially the same as the Philosophical Course, with the substitution of additional Modern Language and Scientific Studies for Latin and Greek. Candidates for the degree of Bachelor of Science must present at least one year of German or French for admission and at least four courses of college work in German or French as requisites for graduation.

V. The Course in Biology, leading to the first degree in Biological Science, covers four years of work in Biology, Chemistry, Physics, Mathematics, and Literature. No one is admitted to the first degree in Biological Science if his average standing for the Course is below nine.

VI. The Course in Chemistry, leading to the first degree in Chemical Science, covers four years of work in Chemistry, Physics, Mathematics, Biology, and Literature. No one is admitted to the first degree in Chemical Science if his average standing for the Course is below nine.

The requirements in Modern Language are the same for the Course in Jurisprudence as for the Philosophical Course; and for the Course in Biology and for that in Chemistry they are the same as for the Course in General Science.

VII. The Course in Civil Engineering, leading to the first degree in Civil Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Technology, and Language. No one is admitted to the first degree in Civil Engineering if his average standing for the Course is below nine.

VIII. The Course in Electrical Engineering, leading to the first degree in Electrical Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Physics, Electro-technics, and Language. No one will be admitted to the first degree in Electrical Engineering if his average standing for the Course is below nine.

IX. The Course in Mechanical Engineering, leading to the first degree in Mechanical Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Physics, Electro-technics, Steam Engineering, Shop-work, and Language. No one will be admitted to the first degree in Mechanical Engineering if his average standing for the Course is below nine.

X. Advanced Courses in Arts, in Science, and in Engineering have been established, leading to the degrees respectively of Master of Arts, Master of Science, Master of Pedagogy, Civil Engineer, and Electrical Engineer.

The Master's degree is conferred only on condition that the candidate has completed a Course of Liberal study, approved by the Faculty, sufficient in amount to constitute a fifth year of college work, two thirds of which must be in one department. Particulars may be learned by addressing the President.

CURRICULA.

Roman numerals indicate the number of class-exercises required each week; when there is no designation, five is understood.

I. THE CLASSICAL COURSE.

Leading to the Degree of Bachelor of Arts.

FRESHMAN YEAR.

I. TERM —Solid Geometry, Cicero de Senectute and Livy, { Odyssey, { Greek Prose Composition,	Rhetoric, I, Oratory, I.
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II. TERM —Higher Algebra, Livy, { Lysias' Orations, { Greek Testament,	Rhetoric, I, Oratory, I.
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III. TERM —Trigonometry, Velleius and Pliny, { Plato's Apology, { Greek Testament,	Rhetoric, I, Oratory, I.
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SOPHOMORE YEAR.

I. TERM —Rhetoric, Horace,	Astronomy, I, Oratory, I.
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ELECTIVE STUDIES:

<i>German,</i> <i>French,</i> <i>Greek History,</i>	<i>American History, a,</i> <i>Chemistry,</i> <i>Surveying,</i> <i>Analytical Geometry.</i>
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II. TERM—English Literature,
Demosthenes,

Astronomy, I,
Oratory, I.

ELECTIVE STUDIES:

Roman History,
American History, b,
Latin, 6,
German,
French,

Logic,
Chemistry,
Differential Calculus,
Advanced Algebra,
Physiology.

III. TERM—Civics, or Economic History,

History of Art, I.

ELECTIVE STUDIES:

Public Address,
Argumentation,
Juvenal,
German,
French,

Anthropology,
Botany,
Chemistry,
Integral Calculus,
Elements of Law.

JUNIOR YEAR.

I. TERM—Psychology,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

Æschylus and Sophocles,
Latin, 8,
English, 6 or 7,
German,
Spanish,
History, Oriental,
Economics,
French,

Real Property,
Sociology,
Physiological Psychology,
Biology,
Embryology,
Chemistry,
Mechanics,
Geology.

II. TERM—Ethics, IV,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>Euripides,</i>	<i>Advanced Logic,</i>
<i>Latin Poets,</i>	<i>Advanced Composition,</i>
<i>English, 8,</i>	<i>Comparative Psychology,</i>
<i>German,</i>	<i>Zoölogy of Invertebrates,</i>
<i>French,</i>	<i>Animal Histology, a,</i>
<i>Spanish,</i>	<i>Human Anatomy, a,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>History, English, a,</i>	<i>Higher Analytics,</i>
<i>Municipal Sociology,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Physics,</i>
<i>Personal Property,</i>	<i>Municipal Government.</i>

III. TERM—Theism, III,	History of Education, I,
History of Philosophy, II,	Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Railroad Transportation,</i>
<i>Latin, 10,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Journalism,</i>	<i>Cryptogamic Botany,</i>
<i>German,</i>	<i>Bacteriology,</i>
<i>French,</i>	<i>Entomology,</i>
<i>Spanish,</i>	<i>Histology, b,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Constitutional Law,</i>	<i>Physics.</i>

SENIOR YEAR.

I. TERM—Social Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Greek, 15,</i>	<i>School Administration,</i>
<i>Greek Testament,</i>	<i>International Law,</i>
<i>Latin, 11,</i>	<i>Comparative Anatomy,</i>
<i>Anglo-Saxon,</i>	<i>Chemistry,</i>
<i>English, 4 or 9,</i>	<i>Geology,</i>
<i>German,</i>	<i>Geodetic Astronomy,</i>
<i>French,</i>	<i>Contracts,</i>
<i>Medieval History,</i>	<i>Advanced Ethics.</i>

II. TERM—Political Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Demosthenes de Corona,</i>	<i>Agency,</i>
<i>Greek Testament,</i>	<i>Philosophy of Mind,</i>
<i>Latin, 12,</i>	<i>History, 11,</i>
<i>Roman Life,</i>	<i>History of Europe, a,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Public Finance,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Psychology of Education,</i>	<i>Economic Geology,</i>
<i>Human Anatomy, b.</i>	

III. TERM—Literature, I.

ELECTIVE STUDIES:

<i>Plato, Phaedo,</i>	<i>Philosophy of Education,</i>
<i>Greek Testament,</i>	<i>History of Europe, b,</i>
<i>Latin, 13,</i>	<i>Private Corporations,</i>
<i>German,</i>	<i>Roman Law,</i>
<i>French,</i>	<i>Partnership,</i>
<i>Shakspere,</i>	<i>Chemistry,</i>
<i>History of Philosophy,</i>	<i>Forestry.</i>

Seniors may take any of the Electives of the Junior Year for corresponding terms.

II. THE PHILOSOPHICAL COURSE.

Leading to the Degree of Bachelor of Philosophy.

A. LATIN DIVISION.

FRESHMAN YEAR.

I. TERM—Solid Geometry,	Rhetoric, I,
Cicero de Senectute and Livy,	Oratory, I.
<i>German or French,</i>	

II. TERM—Higher Algebra,	Rhetoric, I,
Livy,	Oratory, I.
<i>German or French,</i>	

- III. TERM—Trigonometry, Rhetoric, I,
 Velleius and Pliny, Oratory, I. {
German or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Astronomy, I,
 Horace, Oratory, I.

ELECTIVE STUDIES:

<i>German,</i>	<i>American History, a,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Greek History,</i>	<i>Surveying,</i>
<i>Analytical Geometry.</i>	

- II. TERM—English Literature, Oratory, I,
 Astronomy, I.

ELECTIVE STUDIES:

<i>Roman History,</i>	<i>Physiology,</i>
<i>American History, b,</i>	<i>Chemistry,</i>
<i>Latin, 6,</i>	<i>Differential Calculus,</i>
<i>German,</i>	<i>Advanced Algebra,</i>
<i>French,</i>	<i>Logic.</i>

- III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

<i>Argumentation,</i>	<i>Anthropology,</i>
<i>Public Address,</i>	<i>Elementary Law,</i>
<i>Juvenal,</i>	<i>Botany,</i>
<i>German,</i>	<i>Chemistry,</i>
<i>French,</i>	<i>Integral Calculus.</i>

JUNIOR YEAR.

- I. TERM—Psychology, Sanitary Science, I,
 Thesis.

ELECTIVE STUDIES:

<i>Latin, 8,</i>	<i>Sociology,</i>
<i>German,</i>	<i>Economics,</i>
<i>French,</i>	<i>Physiological Psychology,</i>
<i>Spanish,</i>	<i>Biology,</i>
<i>English, 6 or 7,</i>	<i>Embryology,</i>
<i>History, Oriental,</i>	<i>Chemistry,</i>
<i>Real Property,</i>	<i>Mechanics.</i>

II. TERM—Ethics,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 9,</i>	<i>Advanced Logic,</i>
<i>English, 8,</i>	<i>Advanced Composition,</i>
<i>German,</i>	<i>Comparative Psychology,</i>
<i>French,</i>	<i>Zoölogy of Invertebrates,</i>
<i>Spanish,</i>	<i>Animal Histology, a,</i>
<i>English Bible,</i>	<i>Human Anatomy, a,</i>
<i>History, English, a,</i>	<i>Chemistry,</i>
<i>Municipal Sociology,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Higher Analytics,</i>
<i>Municipal Government,</i>	<i>Physics,</i>
<i>Personal Property.</i>	

III. TERM—Theism, III, History of Education, I,
History of Philosophy, II, Thesis.

ELECTIVE STUDIES:

<i>Latin, 10,</i>	<i>Cryptogamic Botany,</i>
<i>Journalism,</i>	<i>Zoölogy of Vertebrates,</i>
<i>German,</i>	<i>Entomology,</i>
<i>French,</i>	<i>Bacteriology,</i>
<i>Spanish,</i>	<i>Histology, b,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Railroad Transportation,</i>	<i>Physics,</i>
<i>Constitutional Law.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 11,</i>	<i>School Administration,</i>
<i>German,</i>	<i>International Law,</i>
<i>French,</i>	<i>Contracts,</i>
<i>Anglo-Saxon,</i>	<i>Comparative Anatomy,</i>
<i>English, 4 or 9,</i>	<i>Chemistry,</i>
<i>Medieval History,</i>	<i>Geology,</i>
<i>Advanced Ethics,</i>	<i>Geodetic Astronomy.</i>

II. TERM—Political Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 12,</i>	<i>Roman Private Life,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Public Finance,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Philosophy of Mind,</i>	<i>Economic Geology,</i>
<i>History of Europe, a,</i>	<i>Human Anatomy, b,</i>
<i>Psychology of Education,</i>	<i>Agency.</i>

III. TERM—Literature, I.

ELECTIVE STUDIES:

<i>Latin, 13,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Philosophy of Education,</i>
<i>French,</i>	<i>Roman Law,</i>
<i>Shakspeare,</i>	<i>Private Corporations,</i>
<i>History of Philosophy,</i>	<i>Chemistry,</i>
<i>History of Europe, b,</i>	<i>Forestry,</i>
<i>Partnership.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

THE PHILOSOPHICAL COURSE.

B. GREEK DIVISION.

FRESHMAN YEAR.

I. TERM—Solid Geometry,	Rhetoric, I,
Odyssey,	Oratory, I.
<i>German or French,</i>	
II. TERM—Higher Algebra,	Rhetoric, I,
{ Lysias' Orations,	Oratory, I.
{ Greek Testament,	
<i>German or French,</i>	

- III. TERM—Trigonometry, Rhetoric, I,
 { Plato's Apology, Oratory, I.
 { Greek Testament,
 German or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Linear Perspective, I,
 Greek History, Oratory, I.

ELECTIVE STUDIES:

<i>American History, a,</i>	<i>Analytical Geometry,</i>
<i>German,</i>	<i>Chemistry,</i>
<i>French,</i>	<i>Surveying.</i>

- II. TERM—English Literature, Astronomy, I,
 Demosthenes, Oratory, I.

ELECTIVE STUDIES:

<i>German,</i>	<i>Logic,</i>
<i>French,</i>	<i>Physiology,</i>
<i>Roman History,</i>	<i>Chemistry,</i>
<i>American History, b,</i>	<i>Differential Calculus,</i>
<i>Advanced Algebra.</i>	

- III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

<i>Argumentation,</i>	<i>Elements of Law,</i>
<i>Public Address,</i>	<i>Botany,</i>
<i>German,</i>	<i>Anthropology,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Integral Calculus.</i>	

JUNIOR YEAR.

- I. TERM—Psychology, Sanitary Science, I,
 Thesis.

ELECTIVE STUDIES:

<i>Æschylus and Sophocles,</i>	<i>Sociology,</i>
<i>German,</i>	<i>Economics,</i>
<i>French,</i>	<i>Physiological Psychology,</i>
<i>Spanish,</i>	<i>Biology,</i>
<i>English, 6 or 7,</i>	<i>Embryology,</i>
<i>History, Oriental,</i>	<i>Chemistry,</i>
<i>Real Property,</i>	<i>Mechanics.</i>

II. TERM—Ethics,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>Euripides,</i>	<i>Advanced Composition,</i>
<i>German,</i>	<i>Comparative Psychology,</i>
<i>French,</i>	<i>Zoölogy of Invertebrates,</i>
<i>Spanish,</i>	<i>Animal Histology, a,</i>
<i>English, 8,</i>	<i>Human Anatomy, a,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>History, English,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Physics,</i>
<i>Municipal Government,</i>	<i>Higher Analytics,</i>
<i>Advanced Logic,</i>	<i>Personal Property,</i>
<i>Municipal Sociology.</i>	

III. TERM—Theism, III,

History of Education, I,

History of Philosophy, II,

Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Journalism,</i>	<i>Entomology,</i>
<i>German,</i>	<i>Cryptogamic Botany,</i>
<i>French,</i>	<i>Bacteriology,</i>
<i>Spanish,</i>	<i>Histology, 6,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Railroad Transportation,</i>	<i>Physics,</i>
<i>Constitutional Law.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Greek, 15,</i>	<i>Advanced Ethics,</i>
<i>Greek Testament,</i>	<i>School Administration,</i>
<i>Anglo-Saxon,</i>	<i>International Law,</i>
<i>English, 4 or 9,</i>	<i>Comparative Anatomy,</i>
<i>German,</i>	<i>Chemistry,</i>
<i>French,</i>	<i>Geology,</i>
<i>Medieval History,</i>	<i>Contracts.</i>

II. TERM—Political Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Demosthenes de Corona,</i>	<i>Agency,</i>
<i>Greek Testament,</i>	<i>Psychology of Education,</i>
<i>Chaucer,</i>	<i>Roman Life,</i>
<i>German,</i>	<i>Comparative Politics,</i>
<i>French,</i>	<i>Public Finance,</i>
<i>Philosophy of Mind,</i>	<i>Chemistry,</i>
<i>History of Europe, a,</i>	<i>Economic Geology,</i>
<i>Human Anatomy, b.</i>	

III. TERM—Literature, I,

ELECTIVE STUDIES:

<i>Plato, Phaedo,</i>	<i>Philosophy of Education,</i>
<i>Greek Testament,</i>	<i>Partnership,</i>
<i>German,</i>	<i>History of Europe, b,</i>
<i>French,</i>	<i>Roman Law,</i>
<i>Shakspeare,</i>	<i>Private Corporations,</i>
<i>History of Philosophy,</i>	<i>Chemistry,</i>
<i>Forestry.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

III. THE COURSE IN JURISPRUDENCE.

*Leading to the Degree of Bachelor of Arts.***FRESHMAN YEAR.**

I. TERM—Solid Geometry, Rhetoric, I,
 Cicero de Senectute and Livy, Oratory, I.
 { Odyssey,
 { Greek Prose Composition,
 or German,
 or French,

II. TERM—Higher Algebra, Rhetoric, I,
 Livy, Oratory, I.
 { Lysias' Orations,
 { Greek Testament,
 or German, or French,

III. TERM—Trigonometry, Rhetoric, I,
 Velleius and Pliny, Oratory, I.
 { Plato's Apology,
 { Greek Testament,
 or German,
 or French,

SOPHOMORE YEAR.

I. TERM—Rhetoric, Political Science, I,
 Horace, Oratory, I.

ELECTIVE STUDIES:

Greek History, French,
American History, a, Surveying,
German, Chemistry.

II. TERM—English Literature, Political Science, I,
 Logic, Oratory, I.

ELECTIVE STUDIES:

<i>Demosthenes,</i>	<i>American History, b,</i>
<i>Quintilian,</i>	<i>German,</i>
<i>Roman History,</i>	<i>French.</i>

III. TERM—Elements of Law, Political Science, I,
American Constitutional Law.

ELECTIVE STUDIES:

<i>Juvenal,</i>	<i>American Literature,</i>
<i>German,</i>	<i>Argumentation,</i>
<i>French,</i>	<i>Public Address,</i>
<i>Economic History.</i>	

JUNIOR YEAR.

I. TERM—Psychology,	Blackstone, I,
Economics,	Thesis.

ELECTIVE STUDIES:

<i>Real Property, Blackstone B. II,</i>	<i>Latin, 8,</i>
<i>Constitutional Limitations,</i>	<i>Greek Tragedy,</i>
<i>English History,</i>	<i>English Literature,</i>
<i>Sociology,</i>	<i>Modern Language.</i>

II. TERM—Ethics,	Blackstone, I,
Money and Banking,	Thesis.

ELECTIVE STUDIES:

<i>Personal Property,</i>	<i>English Bible,</i>
<i>Municipal Government,</i>	<i>Greek,</i>
<i>History,</i>	<i>Latin, 9,</i>
<i>Logic, Course 2,</i>	<i>English Literature,</i>
<i>Advanced Composition,</i>	<i>Modern Language.</i>

III. TERM—Theism,	Blackstone, I,
Private Corporations,	Thesis.

ELECTIVE STUDIES:

<i>Bills and Notes,</i>	<i>Greek,</i>
<i>English Bible,</i>	<i>Latin, 10,</i>
<i>History,</i>	<i>Modern Language.</i>

SENIOR YEAR.

- I. TERM—International Law, Social Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>Contracts,</i>	<i>Latin, 11,</i>
<i>Medieval History,</i>	<i>Modern Language,</i>
<i>Anglo-Saxon,</i>	<i>Advanced Ethics.</i>
<i>English Literature,</i>	

- II. TERM—Comparative Politics, Political Ethics, I,
Thesis.

ELECTIVE STUDIES:

<i>Agency,</i>	<i>Demosthenes de Corona,</i>
<i>Public Finance,</i>	<i>Latin, 12,</i>
<i>Modern Europe, a,</i>	<i>Chaucer,</i>
<i>Philosophy of Mind,</i>	<i>Modern Language.</i>

- ### III. TERM—Roman Law,

ELECTIVE STUDIES:

<i>Partnership,</i>	<i>Shakspere,</i>
<i>Railroad Transportation,</i>	<i>Plato's Phaedo,</i>
<i>Modern Europe, b,</i>	<i>Latin, 13,</i>
<i>History, 9,</i>	<i>Modern Language,</i>
<i>History of Philosophy.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

IV. THE GENERAL SCIENCE COURSE.

Leading to the Degree of Bachelor of Science.

FRESHMAN YEAR.

- I. TERM—Higher Algebra, Rhetoric, I,
Latin, Oratory, I.
German, 2, or French,

II. TERM—Trigonometry, Rhetoric, I,
 Latin, Oratory, I.
German, 2, or French,

III. TERM—Analytical Geometry, Rhetoric, I,
German, 2, or French, Oratory, I.
 Latin,

SOPHOMORE YEAR.

I. TERM—Rhetoric, Astronomy, I,
 Oratory, I.

ELECTIVE STUDIES:

Chemistry, Greek History,
Horace, American History, a,
German, Surveying,
French.

II. TERM—English Literature, Astronomy, I,
 Oratory, I.

ELECTIVE STUDIES:

German, Logic,
French, Physiology,
Roman History, Chemistry,
American History, b, Differential Calculus,
Advanced Algebra.

III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

Public Address, Elements of Law,
Argumentation, Anthropology,
Juvenal, Botany,
German, Integral Calculus,
French, Chemistry.

JUNIOR YEAR.

I. TERM—Psychology, Sanitary Science, I,
 Thesis.

ELECTIVE STUDIES:

<i>English, 6 or 7,</i>	<i>Real Property,</i>
<i>German,</i>	<i>Economics,</i>
<i>French,</i>	<i>Physiological Psychology,</i>
<i>Spanish,</i>	<i>Biology,</i>
<i>History, Oriental,</i>	<i>Embryology,</i>
<i>Sociology,</i>	<i>Chemistry,</i>
<i>Mechanics.</i>	

II. TERM—Ethics,

Sanitary Science, I,

Thesis.

ELECTIVE STUDIES:

<i>English, 8,</i>	<i>Personal Property,</i>
<i>German,</i>	<i>Advanced Composition,</i>
<i>French,</i>	<i>Comparative Psychology,</i>
<i>Spanish,</i>	<i>Zoölogy of Invertebrates,</i>
<i>English Bible,</i>	<i>Animal Histology, a,</i>
<i>History, English,</i>	<i>Human Anatomy, a,</i>
<i>Money and Banking,</i>	<i>Chemistry,</i>
<i>Municipal Government,</i>	<i>Mathematics, 9,</i>
<i>Municipal Sociology,</i>	<i>Higher Analytics,</i>
<i>Physics.</i>	

III. TERM—Theism, III,

History of Education, I,

History of Philosophy, II,

Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Cryptogamic Botany,</i>
<i>Journalism,</i>	<i>Zoölogy of Vertebrates,</i>
<i>German,</i>	<i>Bacteriology,</i>
<i>French,</i>	<i>Entomology,</i>
<i>Spanish,</i>	<i>Histology, b,</i>
<i>English Bible,</i>	<i>Astronomy,</i>
<i>Railroad Transportation,</i>	<i>Physics,</i>
<i>Bills and Notes,</i>	<i>Chemistry,</i>
<i>Constitutional Law.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Anglo-Saxon,</i>	<i>Advanced Ethics,</i>
<i>English, 4 or 9,</i>	<i>International Law,</i>
<i>German,</i>	<i>Comparative Anatomy,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Medieval History,</i>	<i>Geology,</i>
<i>Contracts,</i>	<i>Geodetic Astronomy,</i>
<i>School Administration.</i>	

II. TERM—Political Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>German,</i>	<i>Psychology of Education.</i>
<i>French,</i>	<i>Roman Life,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>Philosophy of Mind,</i>	<i>Public Finance,</i>
<i>Modern Europe, a,</i>	<i>Chemistry,</i>
<i>History, 11,</i>	<i>Economic Geology,</i>

III. TERM—Literature, I,

ELECTIVE STUDIES:

<i>German,</i>	<i>Philosophy of Education,</i>
<i>French,</i>	<i>Partnership,</i>
<i>Shakspeare,</i>	<i>Roman Law,</i>
<i>History of Philosophy,</i>	<i>Private Corporations,</i>
<i>Modern Europe, b,</i>	<i>Chemistry,</i>
<i>Forestry.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

V. THE COURSE IN BIOLOGY.

Leading to the First Degree in Biological Science.

FRESHMAN YEAR.

I. TERM—Algebra,	Rhetoric, I,
General Chemistry,	Oratory, I.
Latin, or German, 2,	
or French,	

- II. TERM—Trigonometry, Rhetoric, I,
 General Chemistry, Oratory, I.
Latin or German, 2,
 or *French,*
- III. TERM—Analytical Geometry, Rhetoric, I,
 Qualitative Chemistry, Oratory, I.
Latin or German, 2, or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Drawing, I,
 Biology, Scientific German, II.
 Quantitative Chemistry,
- II. TERM—Invertebrate Zoölogy, Drawing, I,
 Physiology, Scientific German, II.

ELECTIVE STUDIES:

History, *English Literature,*
Modern Language, *Chemistry,*
Differential Calculus.

- III. TERM—Vertebrate Zoölogy, Drawing, I,
 Botany, Scientific German, II.

ELECTIVE STUDIES:

Chemistry, *Civics,*
Anthropology, *English Literature,*
Integral Calculus, *Modern Language.*

JUNIOR YEAR.

- I. TERM—Psychology, German Biology, I,
 Mechanics, Thesis.
Physiological Psychology,
Toxicology,
- II. TERM—Comparative Psychology, German Biology, I,
 Physics, Thesis.

ELECTIVE STUDIES:

<i>History,</i>	<i>Literature,</i>
<i>Ethics,</i>	<i>Modern Language,</i>
<i>Metallurgy,</i>	<i>Human Anatomy, a.</i>

III. TERM—Entomology,	German Biology, I,
Physics,	Thesis.

ELECTIVE STUDIES:

<i>Astronomy,</i>	<i>English Literature,</i>
<i>Theism,</i>	<i>Modern Language,</i>
<i>Neurology.</i>	

SENIOR YEAR.

I. TERM—Comparative Anatomy,	Social Ethics, I,
Embryology,	Thesis.

ELECTIVE STUDIES:

<i>Geology,</i>	<i>Modern Language,</i>
<i>Economics,</i>	<i>Chemistry,</i>
<i>History.</i>	

II. TERM—Histology,	Political Ethics, I,
	Thesis.

ELECTIVE STUDIES:

<i>Human Anatomy, b,</i>	<i>History,</i>
<i>Economic Geology,</i>	<i>English Bible,</i>
<i>Money and Banking,</i>	<i>Modern Language,</i>
<i>Chemistry.</i>	

III. TERM—Neurology,	Forestry, I.
Bacteriology,	

ELECTIVE STUDIES:

<i>Chemistry,</i>	<i>Literature,</i>
<i>Railroad Transportation,</i>	<i>English Bible,</i>
<i>Forestry,</i>	<i>Modern Language,</i>
<i>History.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

VI. THE COURSE IN CHEMICAL ENGINEERING.

Leading to the First Degree in Chemical Engineering.

FRESHMAN YEAR.

- I. TERM—Chemistry, Rhetoric, I,
Higher Algebra, Oratory, I.
Latin, German, 2, or French,
- II. TERM—Chemistry, Rhetoric, I,
Trigonometry, Oratory, I.
Latin, German, 2, or French,
- III. TERM—Chemistry, Rhetoric, I,
Analytical Geometry, Shopwork, IV.
Latin, German, 2, or French,

SOPHOMORE YEAR.

- I. TERM—Quantitative Chemistry, Drawing, I,
Mechanics, Shopwork, IV.
Rhetoric,
- II. TERM—Quantitative Chemistry, Drawing, I,
Physics, Shopwork, IV.
Differential Calculus,
- III. TERM—Quantitative Chemistry, Drawing, I,
Physics, Shopwork, IV.
Integral Calculus,

JUNIOR YEAR.

- I. TERM—Organic Chemistry, German Chemistry, I,
Electrical Measurements, Thesis.
Toxicology and Food Analysis,
- II. TERM—Organic Chemistry, German Chemistry, I,
Thermo-Dynamics, Thesis.
Metallurgy and Glass-blowing,

- III. TERM—Organic Chemistry, German Chemistry, I,
 Spectrum Analysis, Thesis.
 Agricultural Chemistry, or
 Boilers and Engines,

SENIOR YEAR.

- I. TERM—Physical Chemistry, Social Ethics, I,
 Chemical Preparations, Thesis.
 Geology,
- II. TERM—Physical Chemistry, Political Ethics, I,
 Chemical Preparations, Thesis.
 Direct Current Machinery, or
 Hydraulic Motors, or
 Economic Geology,
- III. TERM—Physical Chemistry, Contracts, I.
 Chemical Preparations,
 Alternating Current Machinery,
 or Water Supply and Sani-
 tary Engineering,

Seniors may take any of the Electives of the Junior Year for corresponding terms.

VII. THE COURSE IN CIVIL ENGINEERING.

Leading to the First Degree in Civil Engineering.

FRESHMAN YEAR.

- I. TERM—Higher Algebra, Rhetoric, I,
 Drawing, Oratory, I.
 German, 2, or French,
- II. TERM—Trigonometry, Rhetoric, I,
 Drawing, Oratory, I.
 German, 2, or French,

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| III. TERM—Analytical Geometry,
Drawing,
<i>German, 2, or French,</i> | Rhetoric, I,
Shopwork, IV. |
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SOPHOMORE YEAR.

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| I. TERM—Rhetoric,
Surveying,
Chemistry, | Geodesy, I,
Shopwork, IV. |
| II. TERM—Differential Calculus,
Descriptive Geometry,
Chemistry, | Geodesy, I,
Shopwork, IV. |
| III. TERM—Integral Calculus,
Railroad Surveying,
Chemistry, | Geodesy, I,
Shopwork, II. |

JUNIOR YEAR.

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| I. TERM—Mechanics,
Strength of Materials,
Roads and Pavements, | Architectural Design, I,
Thesis. |
| II. TERM—Physics,
Masonry,
Metallurgy, | Architectural Design, I,
Thesis. |
| III. TERM—Physics,
Boilers and Engines,
{ Water Supply,
Sanitary Engineering, | Forestry, I,
Thesis. |

SENIOR YEAR.

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| I. TERM—Bridges and Buildings,
<i>Geodetic Astronomy</i> or
<i>Geology</i> or
<i>Advanced Mechanics</i> or
<i>Electrical Measurements,</i> | Social Ethics, I,
Thesis. |
| II. TERM—Hydraulic Motors,
Bridges and Buildings,
<i>Economic Geology</i> or
<i>Advanced Physics</i> or
<i>Direct Current Machinery,</i> | Political Ethics, I,
Thesis. |

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| III. TERM—Bridges and Buildings, | Contracts and Specifica- |
| { Mine Surveying, | tions, I, |
| { City Surveying, | Thesis. |
| <i>Railroad Transportation or</i> | |
| <i>Advanced Physics or</i> | |
| <i>Alternating Current Machinery</i> | |
| <i>or Forestry,</i> | |
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VIII. THE COURSE IN ELECTRICAL ENGINEERING.

Leading to the First Degree in Electrical Engineering.

FRESHMAN YEAR.

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| I. TERM—Higher Algebra, | Rhetoric, I, |
| Drawing, | Oratory, I. |
| <i>German, 2, or French,</i> | |
| II. TERM—Trigonometry, | Rhetoric, I, |
| Drawing, | Oratory, I. |
| <i>German, 2, or French,</i> | |
| III. TERM—Analytical Geometry, | Rhetoric, I. |
| Drawing, | Shopwork, IV. |
| <i>German, 2, or French,</i> | |

SOPHOMORE YEAR.

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| I. TERM—Rhetoric, | Shopwork, IV, |
| Mechanics, | Astronomy, I. |
| Chemistry, | |
| II. TERM—Differential Calculus, | Shopwork, IV, |
| Physics, | Astronomy, I. |
| Chemistry, | |
| III. TERM—Integral Calculus, | Shopwork, IV, |
| Physics, | History of Art, I. |
| Chemistry, | |

JUNIOR YEAR.

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| I. TERM—Electrical Measurements,
Strength of Materials,
<i>Descriptive Geometry</i> , or
<i>Theoretical Mechanics</i> , | Machine Design
and Tools, I,
Thesis. |
| II. TERM—Direct Current Machinery,
Advanced Physics,
Metallurgy, | Machine Design
and Tools, I,
Thesis. |
| III. TERM—Alternating Current Machinery,
Advanced Physics,
Boilers and Engines, | Machine Design
and Tools, I,
Thesis. |

SENIOR YEAR.

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| I. TERM—Design of Electrical Machinery,
Electrical Generating Stations
and Transmission,
Graphical Analysis of Structures, | Social Ethics, I,
Thesis. |
| II. TERM—Design of Electrical Machinery,
Telegraphs, Telephones, Signal-
ing Apparatus,
Hydraulic Motors, | Political Ethics, I,
Thesis. |
| III. TERM—Electric Lighting,
Electric Railways,
Water Supply and Sanitary
Engineering, | Contracts and Specifica-
tions, I. |

IX. THE COURSE IN MECHANICAL ENGINEERING.

Leading to the First Degree in Mechanical Engineering.

FRESHMAN YEAR.

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| I. TERM—Advanced Algebra,
Drawing,
<i>German</i> , 2, or <i>French</i> , | Rhetoric, I,
Oratory, I,
Shopwork, II. |
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| II. TERM—Trigonometry,
Drawing,
<i>German, 2, or French,</i> | Rhetoric, I,
Oratory, I,
Shopwork, II. |
| III. TERM—Analytical Geometry,
Drawing,
<i>German, 2, or French,</i> | Rhetoric, I,
Shopwork, IV. |

SOPHOMORE YEAR.

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| I. TERM—Rhetoric,
Mechanics,
Chemistry, | Shopwork, IV,
Astronomy, I. |
| II. TERM—Differential Calculus,
Physics,
Chemistry, | Shopwork, IV,
Astronomy, I. |
| III. TERM—Integral Calculus,
Physics,
Chemistry, | Shopwork, IV,
History of Art, I. |

JUNIOR YEAR.

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| I. TERM—Electrical Measurements,
Descriptive Geometry,
Strength of Materials, | Shopwork, IV,
Machine Design, I. |
| II. TERM—Direct Current Machinery,
Thermo-Dynamics,
Metallurgy, | Shopwork, IV,
Machine Design, I. |
| III. TERM—Alternating Current
Machinery,
Thermo-Dynamics,
Boilers and Engines, | Shopwork, IV,
Machine Design, I. |

SENIOR YEAR.

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| I. TERM—Steam Engineering (49)
Design of Electrical Machinery,
Bridges and Buildings, | Social Ethics, I,
Thesis,
Shopwork, IV. |
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- II. TERM—Steam Engineering (50) Political Ethics, I,
Design of Electrical Machinery, Shopwork, IV,
Hydraulic Motors, Thesis.
- III. TERM—Steam Engineering (51) Contracts, I,
Electric Lighting, Shopwork, IV.
Water Supply and Sanitary
Engineering,

DEPARTMENTS OF INSTRUCTION

The method of instruction in the College is varied according to the nature of the subject. Each professor has his individual mode of imparting knowledge, and this, in the result, is advantageous to the learner. In general, the aim is to discuss each branch as the subject-matter requires, yet all are presented practically, comparatively, and historically, with the view of leading the student to the apprehension of the subject as an organic whole and in its relations. The range of the instruction can be gathered from the following account of the different departments.

I. DEPARTMENT OF PHILOSOPHY.

JOHN HOWARD HARRIS, LL. D.,
PROFESSOR OF PSYCHOLOGY AND ETHICS.

CALVIN AURAND HARE, A. M.,
PROFESSOR OF CHRISTIAN EVIDENCES AND LOGIC.

THOMAS ALPHEUS EDWARDS, A. M.,
PROFESSOR OF PEDAGOGY.

The studies in this department embrace Psychology, Philosophy, Ethics, Theism, and Pedagogy.

1. **Psychology, Descriptive and Explanatory.** Required Course. Juniors. First term, five hours.

2. **Physiological and Experimental Psychology.** Elective to Seniors and Juniors. First term, five hours.—PROFESSOR DAVIS.

3. **Lotze, Grundzüge der Psychologie.** Seniors and Juniors. Minor. Two hours.

4. **Philosophy of Mind.** Elective to Seniors and Juniors. Second term, five hours.

5. **Logic, Deductive and Inductive.** Second term, five hours.
—PROFESSOR HARE.

6. **Scientific Method, with Exercises in Analysis.** Seniors and Juniors. Second term, five hours.—PROFESSOR HARE.

7. **Argumentation.** Baker's *Principles of Argumentation*. Briefs, forensics, and oral discussion. Third term. (Rhetoric, 3.)—PROFESSOR PHILLIPS.

8. **History of Philosophy.** Lectures. Required of Juniors. Third term, two hours.

9. **Greek Philosophy** (Greek, 10). Elective to Seniors and Juniors.—PROFESSOR HAMBLIN.

10. **Roman Philosophy** (Latin, 16). Elective to Seniors and Juniors.—PROFESSOR ROCKWOOD.

11. **Philosophy.** Jerusalem. Third term, five hours.

12. **Ethics.** Required of Juniors. Second term, five hours.

13. **Social Ethics.** Lectures. Required of Seniors. First term, one hour.

14. **Political Ethics.** Lectures. Required of Seniors. Second term, one hour.

15. **Ethics of Plato and Aristotle.** Study of the Republic and Nicomachean Ethics, with collateral readings and thesis. First term, five hours.

16. **Philosophy of Religion.** Required of Juniors. Third term, three hours.

17. **Evidences of Christianity.** Elective to Seniors. Second term, five hours.—PROFESSOR HARE.

18. **Comparative Religion.** Elective to Seniors and Juniors. Second term, five hours; alternating with 17.—PROFESSOR HARE.

EDUCATION.

19. **History of Education.** A general sketch of educational Theory and Practice in Ancient and Modern times. Lectures. Required of Juniors. Third term, one hour.—PROFESSOR EDWARDS.

20. **Psychology of Education.** Based on Harris' *Psychologic Foundations of Education*. Elective to Seniors and Juniors. Third term, five hours.—PROFESSOR EDWARDS.

21. **Comparative and Child Psychology.** Elective to Seniors and Juniors. Second term, five hours.—PROFESSOR DAVIS.

22. **Philosophy of Education.** Based on Horne's Philosophy of Education. Elective to Seniors and Juniors. Second term, five hours.—PROFESSOR EDWARDS.

23. **School Administration.** High School organization, function and management; discussion of methods; survey of College Entrance Requirements. First term, five hours.—PROFESSOR EDWARDS.

24. **Teachers' Course in American History.** Methods of teaching History with special reference to the work of secondary schools. Second term, two hours.—PROFESSOR COLESTOCK.

25. **Teachers' Course in Greek.** The Anabasis and Iliad are used as text. The preparatory work is reviewed, and suggestions made regarding methods of teachings. Some informal lectures are also given regarding the first year's work in Greek. First term, five hours. Seniors and Juniors.—PROFESSOR HAMBLIN.

26. **Teachers' Course in Latin.** Special topics in grammar, with practical exercises in Cæsar, Cicero, Vergil. Third term, five hours. Seniors and Juniors.—PROFESSOR ROCKWOOD.

27. **Teachers' Course in English.** Designed to familiarize the student with the authors required for entrance to college.—PROFESSOR PERRINE.

28. **Teachers' Course in Mathematics.** Mathematics as developed in history and as used in education. (a) Arithmetic: Its culture value, utility, present status in the schools: reforms in arithmetical teaching. (b) Algebra: Its growth during the last three centuries, typical parts (ethical value). (c) Geometry: Its basis, historical position, methods, recent geometry.—PROFESSOR BARTOL.

CERTIFICATES.

The courses in education and methods of teaching, including Child Psychology, the History, the Psychology, and the Philosophy of Education, are helpful to those intending to teach. Students who take not less than eight of these courses will be entitled to a certificate for the work done in addition to the diploma of the Course in which they graduate.

REGISTER OF TEACHERS.

In order to aid Boards of Control in securing suitable teachers, there is kept a registry of graduates of Bucknell University who

may wish to engage in teaching. Alumni and friends of the College will render a service if they will inform the President of vacancies.

II. DEPARTMENT OF LAW.

HAROLD MURRAY MCCLURE, A. M.,
PRESIDENT JUDGE OF THE SEVENTEENTH JUDICIAL DISTRICT,
LECTURER ON CONTRACTS AND PARTNERSHIPS.

ALBERT WILLIAM JOHNSON, A. M.,
ATTORNEY-AT-LAW,
LECTURE ON REAL AND PERSONAL PROPERTY.

CLOYD NILLIS STEININGER, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON BILLS AND AGENCY.

The Bucknell College of Liberal Arts offers in its courses for the degrees in Arts and Science a number of subjects specially bearing upon the study of law. Students prepared for college and having taken one year's work in liberal studies will be admitted to the studies in Law. The instruction is by text-book, lecture, and study of cases. A certificate for the work done is given by the department, in addition to the Diploma of the College. But this certificate is not given for any legal subject in which the student's standing is below nine; nor to any student whose general average is below nine. Opportunity is given for the *Review* of the *Latin*, *History* and *Literature* required in the Preliminary Examination for registration as students of Law in Pennsylvania.

1. **Elementary Law.** Robinson's Elementary Law. Third term. Sophomore year.—PROFESSOR COLESTOCK.

2. **Blackstone's Commentaries.** B. I, III, IV. One hour, Junior year, three terms.—PROFESSOR COLESTOCK.

3. **Real Property.** Blackstone, B. II, and Select Cases, Lectures. First term, Junior year.—MR. JOHNSON.

4. **Personal Property.** Text-book, Select Cases, Lectures. Second term, Junior year.—MR. JOHNSON.

5. **Contracts.** Text-book, Select Cases, Lectures. First term, Senior year.—JUDGE MCCLURE.

6. **Bills and Notes.** Text-book, Select Cases, Lectures. Third term, Junior year.—MR. STEININGER.

7. **Agency.** Text-book, Select Cases, Lectures. Third term, Senior year.—MR. STEININGER.

8. **Partnership.** Text-book, Leading Cases, Lectures. Second term, Senior year.—JUDGE MCCLURE.

9. **Principles of International Law.** Fall term, Seniors and Juniors.—PROFESSOR HEIM.

10. **Roman Law.** Third term, Seniors and Juniors.—PROFESSOR ROCKWOOD.

11. **American Civics.** A study of the frame of Federal and State Government.—PROFESSOR COLESTOCK.

12. **American Constitutional Law.** Third term, Seniors and Juniors.—PROFESSOR HAMBLIN.

13. **Constitutional Limitations.** Cooley's Constitutional Limitations and cases.—PROFESSOR HEIM.

14. **Comparative Constitutional Law.** Second term, Seniors and Juniors. A comparison of the Constitutions of England, France, Germany, Switzerland, and the United States.—PROFESSOR HEIM.

15. **Moot courts** are held in which an attorney-at-law and a student sit as judges, and students, deputed to represent the respective sides, present their arguments. The presiding student writes the opinion of the court.

III. DEPARTMENT OF ECONOMICAL AND POLITICAL SCIENCE.

EPHRAIM M. HEIM, PH. D., PROFESSOR.

1. **Economics, I.** General course, devoted chiefly to problems of Production and Distribution.

2. **Economics, II.** Money and Banking. Prerequisite, Course I.

3. **Economics, III.** Public Finance. Financial Administration, Taxation, and Public Debts. Alternating with Course II. Prerequisite, Course I.

4. **Corporate Finance and Commercial Law.** Organization and Management of Corporations. Corporation Finance. Form and Nature of Securities and Commercial Paper. Funding Operations,

Accounting and Auditing. Nature and Operations of Special Groups of Corporations, such as Public Service Companies, Financial Institutions, Insurance, etc.

5. Transportation and Commerce. Development of Foreign and Inland Commerce and Transportation. Organization and Methods of Railway Transportation. Theory of Rates, and Methods of State Control. Ocean Transportation, Shipping, and Navigation Acts. Commercial Geography.

6. Industrial History of United States. Development of Business Organization. Evolution of Types of Industry. Changes in Land Tenure; in the Distribution and Marketing of Products; in Forms of Exchange; in Insurance; in Organization of Labor Force; in Legislative Policy. Race Elements in American Industry.

7. Economics. Two hours a week. One of the following subjects will be studied: (1) English Economic History; (2) Socialism; (3) Labor Legislation.

8. American Civics. A study of the American frame of Federal and State Government.—PROFESSOR COLESTOCK.

9. American Constitutional Law. Cooley's Elements of Constitutional Law. A study of the law of the Federal Constitution.—PROFESSOR HAMBLIN.

10. Constitutional Limitations. The Constitutional Law of the American Commonwealth. The sphere of Civil Rights in relation of the exercise of governmental power through the criminal law, the police power, the taxing power, and the power of eminent domain.

11. Comparative Politics. A comparative study of the Constitutions of England, France, Germany, Switzerland, and the United States.

12. Municipal Government. Organization of City Government. Problems of Administration, Municipal Functions. Relation to the State. Second term; five hours. Seniors and Juniors.

13. International Law. First term, five hours. Seniors and Juniors.

14. Political Parties and Party Government. Origin and Growth of Party Government in the United States. Basis of Party Division. Rise and Decline of American Parties. Organization and Machinery of Party Government. European Parties. Lectures, one

hour a week, throughout the year. Required in Jurisprudence Course, elective to Sophomores in other Courses.

15. Political Science. Minor Courses, two hours. One of the following will be given: (1) Elements of Political Science; (2) Administrative Law.

16. American Diplomacy. Minor Course, two hours.

IV. DEPARTMENT OF SOCIOLOGY.

WILLIAM EMMET MARTIN, L. H. D., PROFESSOR.

1. Anthropology, Descriptive and Physical. Elective to Sophomores. Third term, five hours.

2. Sociology, Principles and Theory. Elective to Seniors and Juniors. First term, five hours.

3. Charities and Reform. Seniors and Juniors. Second term, one hour. Prerequisite Course 2.

4. Municipal Sociology. Seniors and Juniors. Second term, five hours.

5. History of Art. Lectures. Sophomores. Third term, one hour.

V. DEPARTMENT OF HISTORY.

HENRY THOMAS COLESTOCK, PH. D., PROFESSOR.

History is studied as the gradually unfolding life-story of the race.

1. Oriental History. A survey of the civilizations along the Nile and the Euphrates, including Egypt, Babylonia, Assyria, Phœnicia, and Persia, constituting an introduction to biblical and classical times. First term, five hours.

2. Hebrew History and Literature. Second term, five hours.—PROFESSOR PHILLIPS.

3. New Testament History and Literature. Third term, five hours.—PROFESSOR PHILLIPS.

4. Greek Political and Constitutional History. First term, five hours.—PROFESSOR HAMBLIN.

5. Roman History. Second term, five hours.—PROFESSOR ROCKWOOD.

6. Roman Private Life. Second term, five hours.—PROFESSOR BALLENTINE.

7. Medieval Europe. General survey of Western Europe, from the fourth to the thirteenth century, with especial attention to the institutional life of the people and the progress of civilization. First term, five hours.

8. Modern Europe to 1789. From the thirteenth century to the opening of the French Revolution. Considers especially the Renaissance, the Protestant Reformation, and conditions combining to produce the French Revolution. Second term, five hours.

9. Modern Europe since 1789. The French Revolution, the Napoleonic era, Unification in Germany and Italy. Progress in civilization, and in social and industrial conditions. Third term, five hours.

10. History of England, a. Political and industrial development of the English people from the earliest times. Second term, five hours.

11. Constitutional History of England, b. With especial reference to the growth and development of the present form of constitutional government in England. Second term, five hours. Alternates with course 10.

12. American Colonial History, a. European background of American colonization. Political, industrial, and constitutional conditions in the English colonies. Causes and results of the Revolutionary War.

13. American Constitutional History, b. Origin of the Federal Constitution. Growth of nationality. Conflict between nationality and state sovereignty. Issues involving the interpretation of the Constitution.

14. Industrial History of United States. Development of Business Organization. Evolution of Types of Industry. Changes in Land Tenure; in a Distribution and Marketing of Products; in Forms of Exchange; in Insurance; in Organization of Labor Force; in Legislative Policy. Race Elements in American Industry.—PROFESSOR HEIM.

15. Teachers' Course in American History. General survey of American history, designed to meet the needs of those who expect to teach history in secondary schools. Minor course.

16. **The Far East.** Survey of present conditions, social and constitutional, in Japan and China. Minor course.
17. **Historical Biography.** Detailed study of one or more important historical characters. Minor course.
18. **Present Conditions in Russia.** Minor Course.

VI. THE GREEK LANGUAGE AND LITERATURE.

THOMAS FRANKLIN HAMBLIN, A. M., PROFESSOR.

There are four terms of required work in Greek in the Classical Course, and five in the Greek Philosophical Course; while Greek may be taken as an elective during the entire Junior and Senior years. Besides the Elective courses a number of Minor Courses are offered. In the Elective Courses a year of poetry alternates with a year of prose. A course of New Testament Greek, designed especially for candidates for the ministry and extending through the Senior year, is given by Professor Phillips.

1. **Homer.** *Odyssey*, Books 5-8. Review of verb forms and syntax of verbs. Epic forms and styles. Word lists. Metre. First term, Freshman year.

2. **Lysias.** Six orations. Inflection and syntax of nouns. Prose composition. Attic oratory. Translation at sight and hearing. Second term, Freshman year.

3. **Plato.** *Apology* and selections. Special topics in Greek Syntax. Philosophy and influence of Socrates. The Sophists. Extracts from the *Memorabilia* at sight. Third term, Freshman year.

4. **Greek Political and Constitutional History.** Bury's *History of Greece* is used as a text-book. The class is also required to do collateral reading on important epochs. First term, Sophomore year.

5. **Demosthenes.** *Olynthiacs* and *Philippics*. History and Politics of the Macedonian period. Style of Demosthenes. Second term, Sophomore year.

6. **Æschylus and Sophocles.** *Prometheus Bound* and *Œdipus Tyrannus*. The drama, theatre, and metres. First term, Seniors and Juniors, in alternate years.

7. **Euripides and Aristophanes.** *Medea* and *The Clouds*. Greek Comedy. Religious influence of the poets. Influence of the

Classical on the Modern Drama. Second term, Seniors and Juniors, in alternate years.

8. **Greek Literature in English.** A course especially designed for students in the Philosophical and Scientific Courses, that they may become acquainted with some of the Greek masterpieces. The best translations will be studied and explained, and informal lectures will be given on various phases of Greek Literature. Third term, Senior and Junior years.

9. **Demosthenes.** *De Corona.* The oratory of Demosthenes, from a literary and political point of view. *Æschines* against Ctesiphon at sight. Second term, Seniors and Juniors, alternating with 6.

10. **Plato.** The *Phaedo*. Greek Philosophy. The influence of Plato. Third term, Seniors and Juniors; alternating with 7.

11. **New Testament Greek.** The Gospel according to Luke. Hellenistic Greek. Second and third terms, Freshman year; one hour a week.

12-14. **New Testament Greek.** Translation of the synoptic Gospels; interpretation; Burton's *Moods and Tenses*; characteristics of Hellenistic Greek. Designed for students desiring a linguistic and historical foundation for the interpretation of the New Testament. Three terms. Elective to Seniors.—PROFESSOR PHILLIPS.

15. **Teachers' Course in Greek.** The *Anabasis* and *Iliad* are used as text-books. Thus the Preparatory work may be reviewed, and suggestions received regarding the methods of teaching. Some informal lectures are also given regarding the first year's work in Greek. First term, Seniors and Juniors.

16. **Xenophon.** The *Symposium* and *Æconomicus*. Sophomores and Freshman. Winter terms in alternate years, one hour.

17. **Homer and Lucian.** Selections from each in alternate years. Sophomores and Freshmen. Third term, one hour.

18. **Xenophon and Æschines.** The *Memorabilia* and the oration against Ctesiphon, in alternate years. Seniors and Juniors, first term, one hour.

19. **Sophocles and the Lyric Poets.** *Antigone* and selections from the Lyric Poets in alternate years. Seniors and Juniors, second term, one hour.

VII. THE LATIN LANGUAGE AND LITERATURE.

FRANK ERNEST ROCKWOOD, LL. D., PROFESSOR.

FLOYD GEORGE BALLENTINE, PH. D., ASSISTANT PROFESSOR.

There are four terms of required work in Latin and eleven of elective in the Classical and Latin Philosophical Courses. Special courses, subject to change from time to time, are also offered.

A. Candidates for the Degree of Bachelor of Science take Latin daily during the Freshman year. This course is intended for students who have passed only in the General Requirements in Latin, for admission. The work consists in the study of *Cicero* (*selected speeches*) and *Vergil*, or *Livy*, and *Prose Composition*.

B. The following courses are designed for students in the Classical and Philosophical Courses, but are also open as electives to students in the Science Course who may be qualified to take them:

1. **Cicero.** *De Senectute*. Livy, Book I. Review of special topics in Latin Grammar. Oral and written exercises in Prose Composition, based upon the text. Translation at sight and at hearing. First term, Freshman year, two divisions.

2. **Livy.** Books XXI and XXII. Latin Prose Composition, based upon the text. Roman history: Special chapters in Liddell. Second term, Freshman year, two divisions.

3. **Velleius.** Roman History. Pliny. Selections from the Epistles. Translation at sight. Latin Prose Composition, based upon the text. Third term, Freshman year, two divisions.

4. **Horace.** Selections from the Odes, Satires, and Epistles. Prosody; Historical Outlines of the Latin Language and Literature; Wilkins' Primer; Lectures. First term, Sophomore year, two divisions.

5. **Roman History.** The work is based on Allen's Rise and fall of Rome. Mommsen, Bury and Gibbon are used for supplementary reading. Second term, Sophomore year.

6. **Quintilian.** Books X and XII. Roman Literature. Second term; open to those who have taken course 4; alternating with 12.

7. **Juvenal.** Selected Satires. Third term; open to those who have taken course 4.

8. **Roman Philosophy.** Cicero and Seneca. First term; open to Seniors and Juniors; alternating with 11.

9. **Plautus and Terence.** Selected Plays. Lectures on such subjects as the life and influence of Terence, the Roman theatre, the production of comedy, etc. Second term; open to Seniors and Juniors; alternating with 14.

10. **Latin Inscriptions.** Allen's Remnants of Early Latin; Egbert's Manual. Third term; open to Seniors and Juniors; alternating with 13.

11. **Tacitus.** Annals. Translation at sight. Roman History. First term; open to Seniors and Juniors; alternating with 8.

12. **Latin Poets.** Crowell's Selections. Roman Literature. Second term; open to those who have taken course 4; alternating with 6.

13. **Teachers' Course in Latin.** Special topics in grammar with practical exercises in Cæsar, Cicero, Vergil. Third term; open to Seniors and Juniors; alternating with 10.

14. **Roman Private Life.** Lectures; required reading; one report, involving elementary investigation. Second term; open to Seniors and Juniors; alternating with 9.

15. **Roman Law.** Morey's Roman Law; Sandar's Institutes of Justinian; lectures and reports. Third term; open to Seniors and Juniors; required in the Course of Jurisprudence.

16. **Christian Writers.** Tertullian and Latin Hymns, one hour.

17. **Classical Philology.** Introductory Course, one hour.

VIII. THE ENGLISH LANGUAGE AND LITERATURE.

ENOCH PERRINE, LITT. D., PROFESSOR.

1. **English Literature**, introductory course. Designed to give a general knowledge of the history of English Literature from the Elizabethan to the Victorian periods, inclusive. Required, second term, Sophomore.

2. **English Literature** from 1832. For those who have taken course 1, and alternating with course 13.

3. **English Literature, 1790-1832:** Wordsworth, Coleridge, Shelley, Byron. For those who have taken course 1, and alternating with course 14.

4. **English Literature, 1614-1790.** For those who have taken course 1, and alternating with course 15.

5. **English Literature, 1600-1660.** For those who have taken course 1, and alternating with course 8.

6. **Shakspere.** Reading of several plays, chiefly as studies in interpretation. For Seniors and Juniors.

7. **Shakspere.** His mind and art. Critical study of *A Midsummer Night's Dream*, *Hamlet*, and *Tempest*. For Seniors and Juniors.

8. **The English Drama.** Its development from the earliest times to Shakspere. For those who have taken course 1, and alternating with course 5.

9. **Teachers' Course in English.** Designed to familiarize the student with those authors, both in the way of theory and practice, that are required for entrance to college. For those who have taken course 1, and alternating with course 10.

10. **Principles of Literary Criticism.** For Seniors and Juniors, and alternating with course 9.

11. **American Literature,** with special reference to the national period. For those who have taken course 1, and alternating with course 12.

12. **Journalism,** a study and practice of the various forms illustrated in the metropolitan "dailies," together with proof-reading, study of the functions of editors, and readings in the history of great American journalists and journals. For those who have taken course 1.

13. **Anglo-Saxon.** Old English Language and Literature, with special elective in *Beowulf*. For those who have taken course 1 and the required work in German.

14. **Chaucer.** Middle English Language and Literature, with readings in Langland and Gower, and in Lounsbury's *The English Language*. For those who have taken course 1 and the required work in French.

15. **Modern English.** Special comparative readings in Modern English Prose. For those who have taken courses 13 and 14, or who show special fitness for the work.

16. **Foreign Literature in English.** Lectures on some of the world's masterpieces are given to the Seniors on Monday mornings during the third term. Alternating with this course, lectures are given on Modern English Fiction.

17. **Periods of English Literature.** Special work is given in different periods of English Literature to those who have passed with credit in courses 1 and 2.

18. *Le Publique et les Hommes de Lettres en Angleterre, 1660-1744; Beljame; or Ecrivains Modernes de l'Angleterre, Montegut. Minor.*

19. **Shakspeare.** Fünf Vorlesungen von Bernhard ten Brink. Minor.

IX. RHETORIC AND ORATORY.

LLEWELLYN PHILLIPS, A. M., D. D., PROFESSOR.

BROMLEY SMITH, A. M., INSTRUCTOR IN RHETORIC AND ORATORY.

CHARLES CARPENTER FRIES, A. M., INSTRUCTOR IN RHETORIC.

A.—COURSES IN RHETORIC AND COMPOSITION.

1. **Rhetoric and English Composition.** Introductory course. Themes, weekly recitations, and consultations. Three terms; one hour. Required of Freshmen.

Students who show good preparation are admitted to a special section, in which more advanced work is given.

2. **English Composition.** Daily themes, recitations, and consultations. First term, five hours. Required of Sophomores.

3. **Argumentation.** Baker's *Principles of Argumentation*. Briefs, forensics and oral discussion. Third term. Open to students who have passed in 1 and 2.

4. **English Composition.** *Advanced Course.* Wendell's *English Composition*. Daily and fortnightly themes, recitations, and consultations. Second term; five hours. Open to Seniors and Juniors.

5. **Theses.** Every member of the Junior and the Senior Class writes a thesis. The Junior theses contain not less than two thousand words, the Senior theses not less than three thousand words. The subjects are chosen in conjunction with the heads of the departments to which the subjects belong. Upon these theses are based the Junior Exhibition orations and the Commencement ora-

tions. The subjects of the theses are presented to the Professor of Rhetoric before October 22, and an outline of each thesis is presented to the Professor of Rhetoric at the close of the first term. The completed theses are handed in before March 1. They are examined first by the heads of the departments to which the subjects belong and afterwards by the Professor of Rhetoric.

6. **English Prose.** Studies in Structure. Two hours.

7. **English Prose.** Studies in the Principles of Style. Two hours.

8. **Teachers' Course.** The theory and practice of Rhetoric and Composition. Carpenter, Baker, and Scott. The teaching of English. Five hours. Open to students who have attained an average grade of nine in courses 1, 2, and 4.

9. **The Theory of Rhetoric.** A study of the laws of thought.

10. **Movements of Thought in the Nineteenth Century.** Methods of investigation; theses. Open to Seniors.

B.—COURSES IN ORATORY.

The aim is to train the student to speak effectively in the pulpit or upon the platform or at the bar. All instruction is based upon the principle that impression precedes and determines expression. Each student receives individual attention during the first half of the course in elocution, during the latter half in oratory. Special attention is given to debate. Each student is urged to take an active part in the work of the Literary Societies.

The ultimate object of the *physical culture* is to secure a good presence and the ability on the part of the voice and body to interpret correctly the conceptions of the mind.

FRESHMEN.

1. **Physical Culture.** Exercises for securing correct position, and harmony of movements and attitudes; exercises for breath control and vocal culture and for grace in gesture.

2. **Public Speaking.** Study of the fundamentals of public speaking; delivery of short extracts from masterpieces of oratory, aiming to secure directness, earnestness, and dignity of address. Required, first and second terms, one hour.

3. **Public Speaking.** Delivery of complete orations illustrating and applying the principles studied in the first and second

terms. A prize is offered to the young man and one to the young woman of the Freshman Class who excels in the delivery of these orations. Required, third term.

SOPHOMORES.

4. Public Speaking. Close analysis and study of the details of public speaking; study of the various styles of delivery and of the different forms of discourse. Delivery of selected extracts from masterpieces illustrating each. Extemporaneous speaking. Reviews and continuation of the physical culture of course 1. Required, first term, one hour.

5. Public Speaking. Study of narration. Description and argumentation. Delivery of selections illustrating each. Preparation and delivery of original narrations and descriptions. Extemporaneous speaking. Required, second term, one hour.

6. Public Speaking. Delivery of complete argumentative selections. Preparation for and participation in debate. A prize is awarded to the young man of the Sophomore Class who shall excel in the delivery of an assigned selection in argumentation. A prize is awarded to the young woman of the Sophomore Class who shall excel in the delivery of an assigned selection in narration. Third term.

7. Public Address. The various forms of addressing the public are studied. Beginning with open letters and editorials, the class advances to presentations, acceptances, nominations, dedications, inaugural addresses, institute talks, banquet toasts, eulogies, commemorative orations, etc. Each student prepares and delivers before his class specimens from the above forms. Third term, five hours; Sophomores.

8. Practical Oratory. Briefs and notes are made the basis for extemporaneous addresses; Congressional speeches and modern occasional orations are outlined and studied. The application of rhetorical and of oratorical principles in their connection with logic is considered. Special work in line with the student's intended profession is given. A limited field, historical, economic, or otherwise, is assigned to each student for development. When his orations have been examined and corrected, the student delivers them before the class. First term, five hours; Seniors and Juniors.

9. Interpretative Reading. The use of the voice in bringing out the meaning of the best literature is obtained by practice in

class. Attention is given to the pedagogical and psychological aspects of reading. Second term, five hours; Seniors and Juniors. (Counts as Minor.)

JUNIORS.

10. Prize Contest. A prize contest in Oratory is held in the third term by Juniors, appointed on the ground of superiority in composition and elocution as shown during the preceding terms of the college course.

11. Prize and Honor Debate. During the year there are three debates by Juniors, the last of which is a prize and honor debate.

12. Oral Debates. Briefs, Debates, and Criticisms. The Professor of Economic and Political Science coöperates in this course. First term; one hour.

The contestants for the Junior Prize are selected from the students who take this course.

SENIORS.

13. Honors in Debating. During the year an elective course in debating is offered to Seniors. The last debate is public.

14. Prize in Oratory. A prize is offered for the best oration of those delivered by the Senior orators at Commencement, regard being had equally to subject-matter, style, and delivery.

X. DEPARTMENT OF MODERN LANGUAGES.

GUIDO CARL LEO RIEMER, A. M., PH. D., PROFESSOR.

BENJAMIN W. GRIFFITH, A. M.,
INSTRUCTOR IN FRENCH.

LEO LAWRENCE ROCKWELL, A. M.,
INSTRUCTOR IN GERMAN.

A.—GERMAN.

1. Elementary Course. Grammar; German Prose; practice in writing German. Two terms.

2. German Prose. Grammar; practice in writing German, reading of Prose and Poetry. Course 1,

3. **German Prose and Poetry.** Grammar; practice in writing German. Required course, Freshmen of the Scientific Course; elective course for those who have taken course 2.

4. **Historical German Prose.** Practice in writing German. Elective course for those who have taken course 3.

5. **Modern German Novelists.** Practice in writing German. Elective course for those who have taken course 4.

6. **Schiller.** Practice in writing German; lectures. Elective course for those who have taken course 4.

7. **Goethe.** Practice in writing German; lectures. Elective course for those who have taken course 4.

8. **Goethe.** Practice in writing German; lectures. Elective course for those who have taken courses 5-7.

9. **Goethe.** Shorter Poems, Dichtung und Wahrheit, Faust I; lectures. Elective Course for those who have taken course 8.

10. **Lessing.** Practice in writing German; lectures. Elective course for those who have taken course 9.

11. **Kleist, Grillparzer and Uhland.** Practice in writing German; lectures. Course 11 alternates with course 8.

12. **Heine, Hebbel and Ludwig.** Practice in writing German; lectures. Course 12 alternates with course 9.

13. **Hauptmann and Sudermann.** Practice in writing German; lectures. Course 13 alternates with course 10.

14. **Lotze.** Grundzüge der Psychologie. (Philosophy 3.)

15. **Shakspere: Fünf Vorlesungen.** (English 16.)

16. **German Political Science.** (Economics, 16.)

17. **German Biological Science.** (Biology 21.)

18. **German Chemical Science.** (Chemistry 16.)

19. **Scientific German.** Designed especially for students in the Engineering Courses. Two hours, throughout the year.

B.—FRENCH.

1. **Elementary Course.** Grammar; French prose; practice in writing French. Required course, Freshmen.

2. **French Prose.** Grammar; practice in writing French. Elective course for those who have taken course 1.

3. **French Prose and Poetry.** Grammar; practice in writing French. Elective course for those who have taken course 2.

4. **Historical and Critical French Prose.** Practice in writing French. Elective course for those who have taken course 3.

5. **Authors of the XIX Century.** Practice in writing French. Elective course for those who have taken course 4.

6. **Corneille and Racine.** Practice in writing French; lectures. Elective course for those who have taken course 5.

7. **Molière.** Practice in writing French; lectures. Elective course for those who have taken course 6.

8. **Authors of the XVIII Century.** Practice in writing French; lectures. Elective course for those who have taken course 7.

9. **A View of French Literature.** Rapid reading; practice in writing French; lectures. Elective course for those who have taken course 8.

10. **Publique et les Hommes de Lettres, or Ecrivains Modernes de l'Angleterre.** (English 15.)

C.—SPANISH.

1. **Elementary Spanish.** Grammar. Conversation. Translation of easy prose. Elective course, for Seniors and Juniors. First term, five hours.

2 and 3. **Spanish Prose.** Translation, Composition, Conversation. Elective course, for Seniors and Juniors. Second and third terms, five hours.

D.—ITALIAN.

Special instruction for engineering students in Italian Grammar and Conversation.

XI. DEPARTMENT OF MATHEMATICS.

WILLIAM CYRUS BARTOL, PH. D.,
PROFESSOR OF MATHEMATICS AND ASTRONOMY.

CHARLES ARTHUR LINDEMANN, A. M.,
PROFESSOR OF APPLIED MATHEMATICS.

FRANK MORTON SIMPSON, SC. M.,
PROFESSOR OF PHYSICS AND DRAWING.

WALTER KREMER RHODES, A. M., E. E.,
PROFESSOR OF ELECTRO-TECHNICS.

FRANK EUGENE BURPEE, A. M., ASSISTANT PROFESSOR.

MARTIN LINNAEUS DRUM, SC. M.,
ASSISTANT PROFESSOR OF MATHEMATICS AND SURVEYING.

ROBERT ROWE SELLERS,
EDGAR ANDREW SABLE,
ASSISTANTS IN SURVEYING.

RAYMOND CALEB DECKER, ASSISTANT IN SHOPWORK.

CHARLES NORMAN BRUBAKER, ASSISTANT IN PHYSICS.

1. Solid Geometry. The course includes the geometry of solids with plane surfaces, the cone, the cylinder, the sphere, the spherical triangle, and conic sections. Freshman year, first term, five hours.

2. Algebra. The topics are ratio, proportion, variation, progressions, theory and development of functions, logarithms, differentiation of algebraic functions, indeterminate equations, series, higher equations. Freshman year, first or second term, five hours.

3. Determinants and Advanced Algebra. Open to students who have completed course 2. Second term, five hours.

4. Trigonometry. The course includes plane trigonometry with application to problems in mensuration and surveying, and spherical trigonometry with applications to problems in astronomy. Freshman year, second or third term, five hours.

5. Analytical Geometry. The student is taken through the properties of the right line, the circle, and the conic sections, and higher plane curves. The course is intended to give a clear conception of the methods of Cartesian analysis and a knowledge of its results. Freshman year, third term, five hours, or Sophomore year, first term, five hours.

6. Higher Analytical Geometry. The course covers the geometry of three dimensions surfaces of revolution and higher plane curves. Junior year, first term, five hours.

7. Differential Calculus. The course includes higher derivatives and functions of several variables, infinite series, maxima and minima. Prerequisite, course 5. Sophomore year, second term, five hours.

8. Integral Calculus. The course includes the methods of integration, rectification and quadrature of plane curves, surfaces and solids of revolution, and applications to problems in Physics and Mechanics. Sophomore year, third term, five hours.

9. Differential Equations. A course with mechanical applications. Senior year, first term, five hours.

10. Descriptive Astronomy. The aim of the course is to present in concise form a synopsis of astronomical knowledge to date. Lectures. Sophomore year, Arts and Science courses, first and second terms, one hour.

11. General Astronomy. The subject is taught by text-book, with illustrations in the observatory. The students have free use of the ten-inch equatorial telescope. Third term, five hours.

12. Geodetic Astronomy. The course includes the use of the astronomer's transit and micrometer; observations for Time; conversion of Time; Latitude, Longitude, Azimuth and their geodetic determination; figure and dimensions of the Earth; use of the American Ephemeris; practice in the Observatory. Prerequisites, a course in Surveying and one in the Elements of Astronomy. Seniors, first term, five hours.

13. Plane Surveying. *Land Surveying*, laying-out, subdividing, and finding the area of given tracts of land. *Topographical Surveying*, by chain and compass, by plane table, and by transit instrument and stadia rods. Sophomore year, first term, five hours.

14. Geodetic Surveying. Minor course. Sophomore year. Civil Engineering, one hour throughout the year.

15. Railroad Surveying. Instruction is given in the theory of simple and compound curves, wyes, switches, and turn-outs. A corps is organized, which makes a preliminary survey of a cross-country railroad. The topography of this is taken and plotted; elevation of centre line taken; grade determined; degree of curves

fixed, and paper location made. Centre line of permanent survey is now located; slope stake set; earthwork calculated; specifications drawn up, and estimates made of the line surveyed. Sophomore year, Civil Engineering, third term, five hours.

16. Mine Surveying. Problems in Mine Surveying, such as plumbing the shaft, locating the bore holes, lining up chambers, driving tunnels, are worked out in class and with the instruments. Plotting of notes forms a part of the work, and a trip of inspection is made to some near-by workings. Senior year, Civil Engineering, third term; five hours for six weeks.

17. City Surveying. Town sites are located and plotted; permanent reference points and bench marks established; sewers located and calculated; curb and property lines determined. Senior year, Civil Engineering, third term, five hours for six weeks.

18. Descriptive Geometry. A study of the representation of lines, plane surfaces, solids, and sections of solids; the projection of points, lines, and surfaces; practical problems. Engineering Courses, Sophomore year, second term, five hours and Junior year, first term, five hours.

19-21. Courses in Drawing. Extending through the Freshman year of the courses in Engineering, and required of all candidates for the first degree in Civil, Mechanical or Electrical Engineering. Ten hours a week.

(1) **Linear and Free-hand.** A course in drawing to give the student facility in the use of instruments; Geometrical problems; cross-sectioning; shading; isometric drawing; sketching from models.

(2) **Lettering.** The form and proportion of standard letters; structural details; methods of spacing; laying out titles.

(3) **Architectural Drawings.** Plans, elevations, and perspective drawings; copy of standards.

(4) **Pen and Color Topography.** Topographical signs; methods of hill shading; surface forms by contours and in color and pencil; enlarging and reducing maps, rendering in water colors, sepia, and charcoal.

(5) **Tracing and Blue Printing.** Photographic methods of the Architect and Engineer.

22. Architectural Design. The design of brick and stone structures, including the preparation of plans and specifications. Junior Engineering, one hour, first and second terms.

23-25. General Physics. (Three terms.) These courses in Physics are required in the Engineering Courses and are elective in the other courses. Instruction is given in the Laboratory supplemented by recitations and lectures.

(a) **LABORATORY.** The Laboratory instruction extends throughout the year and includes experiments illustrating the general laws in all branches of physics. The experiments are largely quantitative and use is made of instruments of precision. The work is entirely individual. The student is required to take notes in the Laboratory, elaborating them outside and presenting for criticism from time to time.

(b) **RECITATIONS.** Recitations supplement the laboratory work. The study of a text covering the theoretical and mathematical side of the subject is required.

(c) **LECTURES.** Frequent lectures are given in which use is made of lecture-room apparatus. All important phenomena are illustrated and experimental demonstrations of the principal laws are presented.

(1) **Mechanics and Heat.** First term.

(2) **Electricity and Magnetism.** Second term.

(3) **Acoustics and Optics.** Third term.

26-29. Advanced Physics. The course extends throughout the year and assumes that the student has completed courses 23-25 or the equivalent. Instruction is given chiefly in the Laboratory. Students are instructed in the use of instruments of precision employed in Heat, Light, Electricity, and Magnetism. The work in the Laboratory is supplemented by written reports in which both general and theoretical results obtained are discussed. These reports afford the basis for criticism of the work. The work must be pursued in such order as the appointments of the Laboratory may require.

26. Electrical Measurements. In this course the student is required to make a thorough study of the instruments of precision used in electrical testing laboratories. The Laboratory is supplied with a large number of galvanometers of the various types, standard cells, standards of resistance, condensers, bridges of the various types, Kelvin Balance, Siemens Dynamometer, variable standard of self-inductance, potentiometers, etc. In brief, the work covers

(a) **Measurement of current, E. M. F., Resistance, Capacity, Induction.**

(b) Study of primary and secondary batteries and standard cells.

(c) Tests and calibration of commercial instruments.

(d) Magnetic behavior of iron. Hysteresis.

27. Heat. A thorough study of the first and second laws of thermodynamics is made. The laboratory work consist of exhaustive studies in *thermometry*, including high temperature measurements by use of the platinum resistance thermometer and the thermocouple. *Calorimetry*, including the determination of heat values of *solid, liquid and gaseous* fuels. Also the steam calorimeter. *Mechanical equivalent of heat* by means of the continuous-flow calorimeter and the Rowland apparatus.

28. Light. The student is instructed in the use of the spectrometer, spectroscope, interferometer, and photometer. A careful study is made of the candle-power of various types of incandescent lamps and gas burners using the Bunsen, Jolly and Lummer-Brodhun screens.

29. Spectrum Analysis. Recitation one hour, Laboratory eight hours per week.

Comparison, observation and mapping of emission spectra with the spectroscope; the qualitative analysis of unknown chemical mixtures and minerals; spark and arc spectra of solids; spark and flame spectra of solids, liquids and gases; absorption spectra of certain mixtures and coloring materials.

The equipment comprises a fine spectroscope by Brashear, a Rowland grating of 14,438 lines to the inch, a spectrometer by the Geneva Society, prisms of all types by the best foreign makers, absorption cells, etc.

30. Strength of Materials. Tensile, compressive, shearing and cross-bending stresses are considered; methods of testing materials of construction are outlined, and problems in the design of wooden and steel beams, girders, footings, beams, roof trusses, etc., are worked out. First term, Junior Engineering, five hours.

31. Masonry Construction. The materials of masonry construction and their preparation and use receive attention; this is followed by a study of foundations—ordinary, pile, and under water. Under masonry structures are treated; masonry dams, retaining walls, bridge abutments and piers, culverts, and masonry arches. Second term, Junior Civil Engineering, five hours.

32-34. Bridges and Buildings. The first term is devoted to Graphical Statics, problems being worked out daily in the drafting room. The work of the second term consists in the determination of stresses in framed structures by means of graphic and algebraic methods. The third term is spent in the calculation and designing of some framed structure and the preparation of the drawings for the same. Senior Civil Engineering, three terms, five hours.

35. Roads and Pavements. The economic location and design of streets and pavements are considered along with the questions of street drainage and foundations for roads and pavements. Comparisons are made between earth, gravel, broken stone, shell, plank, and burned clay roads, and also between asphalt, brick, stone, block, and wooden block pavements. Equestrian roads, race tracks, bicycle paths, and sidewalks receive attention. First term, Junior Civil Engineering, five hours.

36. Hydraulics and Hydraulic Motors. This course includes the theory of Hydrostatics and Hydraulics, the flow of water over weirs, through orifices and tubes, and in pipes, canals, and rivers; the measurement of water-power; water wheels and turbines. Senior Engineering, second term, five hours.

37. Water Supply and Sanitary Engineering. Under the head of the collection and storage of water are taken up quantity of water required, rainfall, flow of streams, storage and evaporation of water, supplying capacity of water sheds, springs, and wells. The flow of water in streams, pipes, and channels is discussed, as also the practical construction of water works. A study is made of the various methods of sewage disposal. Third term, Junior Engineering, five hours.

38. Contracts. In this course are given the principles of Common Law as applied to contracts. Third term, Senior Engineering, one hour.

39. Theoretical Mechanics. Differential and integral calculus are required for admission to this course. The first part of the term is given to ordinary differential equations. This is followed by the study of forces, couples, moment of inertia, and flexible cords, together with the geometry of motion, dynamics of machinery, work, energy, friction and impact. Juniors, first term, five hours.

40 Direct Current Machinery. This course must be preceded by the course in Electrical Measurements or its equivalent. At-

tention is given to the principles of measuring instruments and their calibration, absolute measurement of inductance, principles of dynamo electric machinery, structural details and performance characteristics together with related problems. Lectures, recitations, and laboratory work. Juniors, Engineering, second term, five hours.

41. Alternating Current Generators, Transformers and Motors. Electromotive force and current curves are traced, and their modifications as determined by various conditions of the receiving circuit are noted carefully. Efficiency, regulation, and general performance of alternating current apparatus are studied in detail. This course must be preceded by the course in Direct Current Machinery. Lectures, recitations, and laboratory exercise. Juniors, Engineering, third term, five hours.

42. Design of Electrical Machinery. During the first part of the work in design type forms of electromagnets, direct current generators and motors are computed and drawings made of the electrical and mechanical details. In the second part of the course, type forms of alternating current generators, transformers, and induction motors are computed and drawn in detail. Exercises are given in the winding of transformers and induction motors. Lectures, computing exercises, drawing and shopwork. Seniors, Electrical Engineering, first and second terms, five hours.

43. Generating Stations and Sub-stations, Distribution of Electricity, Storage Batteries. Comparative performance of the important prime movers, and the economic management of generating plants and sub-station equipment are studied in detail and practical estimates made. Attention is also given to the application of secondary cells to the problems of distribution. Seniors, Electrical Engineering, first term, five hours.

44. Telegraph, Telephone, Railway Signal and Related Apparatus. Attention is given in detail to the electrical connections, and principles of operation of the various types of apparatus. Efficiency tests are made and the graphs plotted. Recitations and laboratory work. Seniors, Electrical Engineering, second term, five hours.

45. Electric Lighting, Construction, Wiring and Economics. The various systems and arrangements of wiring for lighting and power distribution are investigated, and practical problems in the economics of wiring and line construction are computed. Typical

systems are worked out in detail. Seniors, Electrical Engineering, third term, five hours.

46. Electric Railways, Construction, Operation and Economics. This course deals with the theory and design of the different types of electric railway construction. Analysis of train performance, types of control, systems of braking and methods of motor suspension are studied in detail. The economics of the operation and maintenance of American electric railways is considered in the conclusion of the course. Seniors, Electrical Engineering, third term, five hours.

47. Machine Design, Machine Tools. Elementary machines, generation of tooth outline in gears, and aggregate combinations are studied in detail, followed by the computations of type forms of cutting and grinding tools. Lectures, recitations and drawing. Juniors, Electrical Engineering, throughout the year, one hour.

48. Boilers, Steam, Gas, Air, and Oil Engines, Valve Gears, and Governors. This is a general course dealing with the thermodynamics of the heat engine, the theoretical, indicated and actual horse-power of the steam engine, and methods of calculating each. A study of the different types of steam boilers, and how to calculate and uses them, is made. The general subject of combustion is taken up and calculations made on different kinds of fuel, both from proximate and ultimate analyses. A large number of problems relating to steam engines, boilers and power plants are given, and three or four actual tests on engines and boilers are made and reports are made out in accordance with the standard forms. Junior year, Engineering all courses, third term, five hours.

49, 50, 51. Steam Engineering. Senior year, Mechanical Engineering, five hours, through the year.

49 Steam Engines and Turbines. In this course the different types of steam engines and turbines are carefully studied, going more into detail than in course 48, special attention being given to the moving parts such as valves, valve-gears, etc. Also the various economizing appliances and their effect upon the cost of producing power are taken up. The class-room work is supplemented by frequent tests on engines, by means of which the theoretic calculations are verified. First term.

50. Boilers. A careful study of the construction and settings of different types of boilers is made. Different systems of steam heating are considered and the student is required to design and calculate all dimensions for a steam boiler and piping

system of proper capacity to heat a given building, locating all radiators, valves, cocks, steam-traps, etc. Attention is also given to feed water heaters, pumps, injectors and other boiler auxiliaries, as well as to the matter of boiler scale and its preventatives. Second term.

51. Steam Engine Design. This course follows very closely course 49, covering the design of the principal parts of the steam engine, such as the cylinder, piston, shaft, fly-wheel, governor, etc. After the principles of design have been carefully worked out in the class-room, each student is required to design and draw the parts for a steam engine of given size. Third term.

52-54. Shopwork. In Mechanical Engineering, shopwork is required of students throughout the four years of the course. In Civil, Electrical and Chemical Engineering, it is required throughout the Sophomore year. The Machine Shop is provided with all necessary appliances for teaching the subject in the best manner. Four courses are given, each extending through a year.

52. Wood-working. The course in wood-working consists of carpentry, cabinet work and the principles of wood-turning. Freshman year, Mechanical Engineering, two hours.

52. Pattern-making and Moulding. A general course covering pattern-making, simple moulding and the principles of more complex moulding and machine-shop practice. The patterns are made and moulded and the castings machined by the same students. Parts of actual machines, such as gas engines, speed lathes and electric motors are made and assembled during the course. Sophomore year, all Engineering Courses, four hours.

54. Gas and Gasoline Engines. A careful study is made of the various types of gas and gasoline engines, their theory, history and design being discussed. Each student is required to design the parts, make the patterns and actually build a small-sized gas engine, putting it together ready to run. Junior year, Mechanical Engineering, four hours.

55. Steam Engine. The work in this course is similar to that in course 53, except that either a steam engine or an electric generator is built. Senior year, Mechanical Engineering, four hours.

XII. DEPARTMENT OF CHEMISTRY.

WILLIAM GUNDY OWENS, A. M., PROFESSOR.

CARL GLYCART, SC. M., INSTRUCTOR.

OLIVER SAMUEL DELANCEY,

HOWARD WARNER STARKWEATHER,
ASSISTANTS.

The courses in Chemistry are designed to give a comprehensive view of the field covered by chemical investigation and to train the student in the various methods of chemical research. The courses as a whole are offered to those who expect to teach chemistry or enter the testing or industrial laboratory. As chemistry is at the foundation of the natural sciences, the first courses are essential to the study of science and medicine, and are important for general culture.

1. **Descriptive Chemistry.** Text-book, lectures, and laboratory experiments. The properties, preparation, history, and uses of the non-metallic elements and their compounds. First term.

2. **Descriptive Chemistry.** Text-book, lectures, and laboratory experiments. The properties, preparation, history, and uses of the metallic elements and their compounds. Second term.

3. **Qualitative Analysis.** In the first part of the term chemical reactions are studied in the laboratory, class-room, and text-book, after which fifty compounds, mixtures, and industrial products are determined. Each student reports individually and is questioned on the methods of determination. Twelve hours laboratory work a week required. Third term, prerequisite courses 1 and 2.

4, 5, 6. **Quantitative Analysis.** This course, extending through the year, aims to acquaint the student with the methods of analysis used in different chemical determinations.

(1) In the first term Gravimetric and Volumetric analyses are made with pure chemicals to acquire principles and methods.

(2) In the second term, Standardization, rock ore alloy and water are studied.

(3) In the third term Fire, Gas and Electro-chemical methods are practiced.

7, 8, 9. **Organic Chemistry.** Prerequisites, courses 1, 2, and 3. Five hours a week; laboratory six hours.

(1) First term. The saturated hydrocarbons and their derivatives are studied with special regard to constitution. Pure organic compounds are prepared in the laboratory and their reactions investigated. Ultimate organic analysis begun; Carius' determinations.

(2) Second term. The unsaturated hydrocarbons of the olefine and acetylene series and their derivatives are studied. Later, carbohydrates, ureids, etc., are taken up. Stereo-chemistry. In the laboratory, more preparations are made and ultimate organic analysis continued with determination of nitrogen, carbon, and hydrogen.

(3) Third term. The aromatic hydrocarbons and their derivatives are studied. Later, polycyclic and heterocyclic compounds; terpenes and camphors are taken up. In the laboratory, preparations of comparative difficulty are made and ultimate organic analysis continued with electro-combustions.

(4) Organic Preparations. Prerequisites, Organic Chemistry. A laboratory course of fifteen hours per week, designed to give technic in organo-synthesis. Written reports with critical discussions of reactions, methods, etc., are required for all preparations.

(5) Organic Preparations. A laboratory course of fifteen hours per week. Written reports required as in IV. Dyes are prepared during the first part of the term, and sugars and related compounds are later taken up.

10, 11, 12. **Physical Chemistry.** Prerequisites, Chemistry 1, 2, 3, 4, 5, and 6; Physics 23, 24, and 25. Calculus.

Five hours per week. Laboratory six hours. Written reports with critical discussions required for all experiments.

(1) First term. Gases and gas laws, kinetic theory of gases, solubility, the phase rule, equilibria, etc., are studied. Thermo-dynamics introduced.

Laboratory determinations of density, viscosity, molecular rotation and refraction, solubility, partition, and vapor pressure are made.

(2) Second term. Thermo-chemistry, solution, osmotic pressure, and balanced actions are first studied. Later, the theoretical part of electro-chemistry is begun. Chemical statics and dynamics continued.

The laboratory work consists of determinations in thermometry, calorimetry; of molecular weights, and velocities of reactions.

(3) **Third term. Electro-chemistry.** Theoretical electro-chemistry is contained and technical subjects are studied. Conductivity, migration of iron, electromotive force, and polarization are studied in detail. Experiments on these subjects constitute the laboratory work.

13, 14, 15. **Chemical Preparations.** Prerequisites, courses 1, 2, 3. Laboratory Course; fifteen hours per week.

(1) **First term.** Inorganic substances are prepared and purified. Underlying principles of methods are emphasized in the written reports required for all preparations.

(2) **Second term.** Fifteen hours per week. Preparations of some difficulty are now made. In the second half of the term compounds of the rare earths are prepared and their reactions studied.

(3) **Electro-synthesis.** Third term. Inorganic and Organic compounds are synthesized with the aid of the electric current. Arc-furnace work is later taken up. Relations of yield to temperature, current density, etc., are taken up in detail by the student in the written reports.

16. **Toxicology and Urinalysis.** Poisons and their separation from organic matter are studied during the first part of the term. During the second part analysis of urine and of food adulteration is studied. Laboratory work, ten hours a week. Prerequisites, courses 1, 2, and 3.

17. **Metallurgy.** The manufacture and properties of iron and steel are studied and the influence of carbon, silicon, phosphorus, sulphur and other elements. Laboratory work consists in determining these elements and studying the structure under the microscope. Glass blowing and manipulation are also taken up. Laboratory work, eight hours a week. Prerequisites, courses 1, 2, and 3.

18. **Agricultural Chemistry.** The chemistry of plants and fertilizers is studied. Fertilizer and food analysis is practiced in the laboratory six hours a week. This course covers the legal requirements for teachers of Pennsylvania high schools. Prerequisites, courses 1, 2, and 3.

19. **German Chemical Literature.** One hour a week, throughout the year. Prerequisites, at least two terms of German, and courses 1, 2, and 3 in chemistry.

Selections from standard German text-books and periodicals

are read, and study is made of the derivation and formation of scientific words.

20. **Physical Chemistry.** Mathematical topics.

21. **Organic Research.**

22. **History of Chemistry.**

XIII. DEPARTMENT OF BIOLOGY.

NELSON FITHIAN DAVIS, SC. D., PROFESSOR OF BIOLOGY.

NORMAN HAMILTON STEWART, A. B., SC. M.,
ASSISTANT PROFESSOR OF BIOLOGY.

ELWOOD HARRIS COURTER, ASSISTANT.

It is the constant aim in this department to teach how to interpret nature. The student is guided in his investigations by lectures and laboratory manuals.

1. **Animal Physiology.** The aim of this course is to acquaint the student with the elementary facts concerning the functions of the human body. The work consists of lectures and readings from text-books on Physiology. The course is intended for those who wish a general knowledge of Physiology.

2. **Physiological and Experimental Psychology.** Elective to Seniors and Juniors.

3. **Comparative and Child Psychology.** Text-book, reports. Elective to Seniors and Juniors.

4. **Sanitary Science.** Lectures, one hour a week through the year.

5. **Human Osteology and Comparative Anatomy.** Recitations and dissections. In this course the student makes a systematic study of the human skeleton. The structure of the composite bones is compared to those of other vertebrates.

6a. **Human Anatomy.** Lectures, recitations, and dissections. The student has an opportunity to make a complete dissection of the entire human body. The work is largely independent. Models and text-books are used as guides.

6b. A second course, similar to 6a.

7. **Normal Histology (a).** Recitations and lectures, and laboratory work. In this course the student makes a thorough study

of the microscopic structure of the cell and elementary tissues, followed by the study of the various organs of mammals. In the laboratory work the students prepare specimens by the various methods in fixing, hardening, staining and sectioning.

8. Normal Histology (b). A continuation of course 7.

9. Embryology. Recitations, lectures, and laboratory work. This course is important because it gives a key to the interpretation of the structure and relationship of the parts of the animal body, and because it investigates the development of the individual. It includes the early development of amphibians, birds and mammals.

10. Biology. Recitations and dissections. The aim of this course is to meet the needs of general education in this subject, and at the same time makes clear the fundamental principles, scope, method, history, and subdivisions of Biology and its relations to other sciences.

11. Invertebrate Zoölogy. Recitations and dissections. This course succeeds the course in Biology. It takes up the study and dissection of representatives of the invertebrate groups, including their life, histories, habits and distribution.

12. Vertebrate Zoölogy. Recitations and dissections. This is a continuation of course 10. It completes a general survey of the animal kingdom, special attention being given by each student to dissections, anatomy, life histories, and habits of the various groups.

13. Philosophy of Zoölogy. Lectures and discussions. The evolution of the animal kingdom is traced and much time is given to the relation of evolution to thought. The principal facts and problems of variation and heredity are dealt with.

14. Entomology. Recitations and laboratory work. In this course each student makes a thorough study of the dissection, life history, and habits of insects representative of the different orders. Special attention is given to the economical importance and relation of insects to agriculture.

15. Heredity. Minor course. The lectures and reports deal with the principal facts and problems of variation and heredity and are supplemented by collateral readings.

16. Phænogamic Botany. Recitations, lectures, and field work. This is a general course including the anatomy of the representa-

tive types and their relation to the environment; a study is made of the local flora.

17. Cryptogamic Botany. Recitations, lectures, and field work. This includes a general introduction to Botany, taking up the study of at least one plant from each of the groups, and working out their life histories. The laboratory work and lectures develop the subject from the evolutionary standpoint.

18. Elements of Forestry. A course covering the factors that control and regulate the development of our forests.

19. Bacteriology. Recitations, lectures, and laboratory work. The laboratory work includes the practice of the essential bacteriological methods. Much time is given to the study of bacteria found in water and in milk.

20. Mineralogy and Geology. Recitations, lectures, and laboratory work. A general course intended to give the leading facts and principles of Geology and the more important events in the Geological history of the earth. The development of the North American continent is studied in detail.

21. Economic Geology. Recitations, lectures, and laboratory work.

22. German Biological Literature. Junior year, one hour throughout the year.

MEDICAL PREPARATORY DEPARTMENT.

The student can select from the medical subjects offered at Bucknell University such as will be required for advanced standing in the Medical College in which he may wish to complete his studies for the degree in medicine, and if his standing in such subject averages not less than nine, he will receive from the Department of Medicine in Bucknell University a Certificate of proficiency in those subjects and in such other subjects related to medical studies as he may have completed at Bucknell. These subjects are open only to students in the College of Liberal Arts, and the Certificate of proficiency is given to students only upon graduation, and in addition to the Diploma of the College of Liberal Arts.

THE BIOLOGICAL LABORATORY.

The Biological Laboratory is equipped with apparatus for carrying on work in the Organic Sciences. A large room has been

fitted up especially for Microscopic work with equipments for students. Each student has a separate desk containing a microscope and the necessary reagents. The Laboratory is also supplied with collecting and bacteriological apparatus, with books of reference, and other appliances necessary for carrying on Biological research. Those taking Microscopy have the use of microtomes, incubators, reagents, etc. New apparatus is added as occasion demands. The work in Zoölogy is illustrated by marine and fresh-water forms, skeletons, and mounted specimens. In comparative Anatomy and Osteology the work is illustrated by skeletons representing different types of vertebrates. Physiology is illustrated with human skeletons, a life-size French manikin, prepared tissue, and numerous charts. Material for Human Anatomy is received from the State Anatomical Board in Philadelphia, and each student has the opportunity to dissect the whole human body. The work in Materia Medica is illustrated by specimens of crude drugs. The student in Histology and Embryology has a good supply of paraffin and collodion blocks. The work is illustrated with microscopic slides, alcoholic material, and French wax models. Each student is provided with dissecting instruments.

THE MUSEUM.

PROFESSOR NELSON FITHIAN DAVIS, SC. D., *Curator.*

ELWOOD HARRIS COURTER, *Assistant.*

The University possesses good collections of illustrative material in Botany, Zoölogy, Histology, Geology, Mineralogy, and Materia Medica. Parts of these collections are kept in the laboratories and used in class-room work.

Since the erection of the Carnegie Library two large rooms in this building have been set aside as a museum, and the principal collections have been transferred from the Main College to these rooms. A special effort is being made to secure additions to the museum and objects will be thankfully received; especially such as can be used in laboratory work. Among these may be mentioned: marine and fresh-water forms of life; insects; skeletons of vertebrates; birds and mammals; botanical specimens; crystalized minerals and rocks.

A large collection now owned by the University consists of minerals and rocks, fossils, and Indian relics. It is especially desired to secure collections to illustrate the geology, minerals, flora, and fauna of Pennsylvania. Recently attention has been

given to increasing the collection of Pennsylvania birds, and it is hoped that within a short time the University may possess a good series of mammals also.

ART COLLECTION.

A room in the Carnegie Library ninety feet long has been set aside for the Art Collection. The collection consists of about one thousand specimens of paintings, casts, engravings, and heliotypes, and furnishes valuable aid in illustrating the principles and history of painting and sculpture.

A course of lectures is given yearly to students of the Sophomore class on the History of Art.

THE LIBRARIES AND READING ROOMS.

Librarian: PROFESSOR WILLIAM E. MARTIN, A. M.

Assistants:

FRANKLIN JOSEPH GRONDE AND REBEKAH MONAGHAN GIBBONS.

The College Library. The general Library contains over thirty thousand volumes, besides many thousand pamphlets. The reading room is connected with the Library, and offers facilities for reading, studying, and writing. During term time both are open forenoon and afternoon of each day, Sundays and holidays excepted, and both are maintained without extra charge to students. Students in all departments have free access to the shelves, and may draw two books at one time and retain them for two weeks, with the privilege of one renewal, if desired.

For greater convenience of instructors and students, collections of special technical books are also kept in the Laboratories of the Physical and Organic Sciences, and in the Astronomical Observatory.

The Library is regarded as a working laboratory for all departments of instruction, students being constantly cited to it in class-room work. In this way, while answering the purpose of general culture, it supplements in great measure the monographic treatment of text-book study, and the student is trained under competent guidance to become an investigator. The resulting practical acquaintance with books and bibliography proves a valuable part of liberal education.

The Carnegie building for the accommodation of the Library was erected in 1905, the gift of Hon. Andrew Carnegie, D. C. L.

By aid of the Card Catalogue and Poole's Index to Periodicals, all the resources of the Library on any given subject are at once available.

Gifts to the Library of money and of books will be thankfully acknowledged by the librarian.

CLASS ORGANIZATION.

Each class is organized with a president and other usual officers. The classes meet for the election of officers on the first Friday of the school year, at three o'clock in the afternoon. The officers then elected serve until their successors qualify. The officers elected on that date by the Freshman class serve until Matriculation day, when permanent officers are elected.

FRATERNITIES.

No student is permitted to join a fraternity until he has received a certificate from the President of the University under seal that he has been a student for one year in the college, that he has completed one year's work and that his conduct has been satisfactory.

GENERAL COLLEGE ORDERS

ATTENDANCE.

Only under exceptional circumstances will excuses be granted to leave College during term time. In such cases the examination on the studies gone over by the class, during a student's absence, will be especially searching, and a high degree of attainment will be required. When a student is absent more than one fourth of the term for any reason, he is required to stand private examination in addition to the examination required of the class. One who is absent during the entire term must also necessarily lose his standing in his class. The work of the term begins on the day of opening, and recitations are expected at the first hour appointed for the meeting of the classes. The work continues uninterruptedly, with the exception of holidays marked in the Calendar, until the last day of the term.

STANDING.

Each instructor records, in numbers ranging from 0 to 10, the character of the recitation of every student reciting to him, and notes also any delinquency in conduct and attendance. The weekly summary of these markings is recorded in permanent books, and constitutes the basis for determining the standing of the student during his connection with the institution. Unexcused absences from recitations are counted as zero in making up the weekly averages. *Excused* absences have half the effect in lowering a student's standing as unexcused absences, but a student may, at the option of the professor, do supplementary work to obviate the effect upon his standing of excused absences. At the close of each term an average of these marks is made out, and, if the student's financial obligations to the institution have been met, a report of the scholarship, attendance, and conduct of each student is transmitted to his parent or guardian by the President. No student is advanced from one class to another whose average in any study is less than 7; nor is any student recommended to the Board of Trustees for graduation in the general courses if his average standing during either his Freshman or Sophomore year is below 8; or if in his

Junior year it is below 8.5; or if in his Senior year it is below 9. The passing grade for graduate students is 9. No one will be recommended for graduation in the Courses in Jurisprudence, Biology, Chemistry, and in Civil, Electrical or Mechanical Engineering, nor be granted a certificate in the Law or Medical studies, if his average is below 9.

Conditioned students are not recommended to the Board of Trustees for promotion. Students conditioned on entrance must discharge such conditions within the first year thereafter.

If the student has failed in the studies of a term, he will not be permitted to enter upon the studies of a subsequent term until he has passed in the subjects in which he failed, unless a postponement of examination to a definite time is granted by the Faculty.

Appointments in the Graduating Class are made according to the aggregate standing of each member during his entire course. But in assigning these parts the Faculty takes into account the deportment of the student, as well as marks for recitations. The minimum average for an Oration of the First Class is fixed at 9, and for the Oration of the Second Class at 8.

Students who attain an average of 9.4 or more for their entire course are graduated *summa cum laude*; students who attain an average of 9.2 or more are graduated *magna cum laude*; those who attain an average of 9 or more are graduated *cum laude*.

EXAMINATIONS.

The dates of the examination are given in the Calendar. In case a student fails to be present at the examination of his class, for any justifiable reason, his examination will be held at such time as the Faculty may appoint, but in no case is an examination granted a student in advance of the time appointed for the examination of the class.

Unless for very good reasons to the contrary, a student who is granted a special examination will be required to pay a fee of five dollars therefor.

PUBLIC WORSHIP.

The College duties of each day are opened with religious services at Bucknell Hall, which all the students of the College are required to attend.

Attendance upon public worship in some church in town on Sunday morning is required. Students are required to attend the religious services held on Thanksgiving Day.

On the Day of Prayer for Colleges a sermon is preached by the President, or by some one at his request. All the students are required to attend.

GOVERNMENT.

It is assumed that all who enter the courses of study in the College do so for the purpose of acquiring an education, not only of the intellect, but also of character. The Laws of the College, enacted by the Board of Trustees, are as few and simple as the proper regulation of a community of young men will permit. These are printed, and a copy is placed in the hands of every student at the beginning of each year. These laws must be observed, not only in their letter, but in their spirit. The atmosphere of the institution is not that of arbitrary restraint, but of reasonable conformity to reasonable laws. The College does not wish to place its stamp or bestow its honors upon any one who is not willing to deport himself as a gentleman. Each student is distinctly placed upon his manhood, and if he abuses his privileges, after reasonable caution, he must withdraw from the institution, at the request of the President.

PRESIDENT'S OFFICE HOURS.

The President of the University is in his office in the Main College building, every Tuesday, from 9.30 A. M. to 12 noon, to confer with students who may desire advice or assistance. Students are encouraged to communicate frankly with the President upon any subject in which he may be of help to them.

OFFICE HOURS FOR THE COLLEGE WOMEN.

The Dean of the Women's Department will meet in his office College women who may desire advice or assistance from him.

VOLUNTARY SOCIETIES.

The Young Men's Christian Association is formed of students of the College. It receives religious periodicals and corresponds with kindred societies. A hall has been appropriated to the Society, and has been suitably furnished for religious meetings.

The Young Women's Christian Association, a voluntary society open to the officers and students of the College and Institute, meets weekly. The regular Tuesday evening prayer meeting, missionary and temperance work, special Bible Classes and College Settlement work are in charge of this Association.

Euepia; Theta Alpha. These are the two Literary Societies of the College for men. They hold meetings for Orations, Essays, and Debates. Each Society has a convenient hall, and by an arrangement of the Faculty will always have a nearly equal number of members.

The Zeta Literary Society is composed of young women admitted to any of the Courses in the College.

The Students' Publication Association is an organization which has in charge the issuing of the *Bucknell Mirror*. This periodical appears monthly during the collegiate year. The same Association publishes the *Commencement News* daily during Commencement week.

Another association of students publishes, weekly, during the school year, the *Orange and Blue*.

The Athletic Association of the College has been formed to encourage and regulate athletic sports. Considerable liberty is allowed the Association in carrying out its purpose. The Association is not allowed, however, to arrange match games with other similar bodies without having secured the consent of the Faculty.

No student who is deficient in rhetorical or class-room work in any term shall be eligible to the office of manager or director in any student organization, or to be a member of any exhibiting organization, or of any contesting athletic team, or of any publishing or editing board during any subsequent term until such deficiency is made up.

HEALTH AND PHYSICAL CULTURE.

GEORGE W. HOSKINS, PHYSICAL DIRECTOR.

The Tustin Gymnasium has been provided for the physical training and development of young men. Young women have opportunity for physical training in the Gymnasium of the institute. These are now provided with the apparatus usually found in well-furnished gymnasiums. The Directors of the Gymnasium examine every student, taking and recording in a book his physical measurements, and prescribe such exercise as may be required for his physical development. Regular exercise in the Gymnasium is required of all students during the winter term.

AIDS AND HONORS

PRIZES.

The prizes are awarded to the persons who in the judgment of the several committees attain the highest degree of excellence among the respective competitors, but no prize is bestowed unless a high degree of merit has been attained by the person receiving it.

THE PRIZE OF THE CLASS OF '71.

This prize, established by the Class of 1871, is awarded to the student of the Freshman Class who shall prove himself best prepared for College in the two branches, Latin and Mathematics, and who shall have received his preparatory training at Bucknell Academy.

The prize for 1910 was awarded to Harold Augustus Schaffer.

THE FRESHMAN DECLAMATION PRIZE.

A prize is awarded to the member of the Sophomore Class who shall excel in declamation at the Annual Contest of the Freshman Class.

The prize for 1910 was awarded to John Dietrich Wittich Fetter.

THE SOPHOMORE DECLAMATION PRIZE.

A prize is awarded to the member of the Sophomore Class who shall excel in declamation at the Annual Contest of the Sophomore Class.

The prize for 1910 was awarded to Guy Cleveland Brosius.

DECLAMATION PRIZES FOR WOMEN.

Prizes for the best declamation, open for competition to the Sophomore and Freshman Classes, were awarded in 1910 respectively to Annetta Amelia Stahl and Elsie Martha Park.

THE REGISTRAR'S PRIZE.

The Registrar of the University offers a prize to that member of the Junior Class who shall pronounce the best oration at the Junior Exhibition in Oratory.

The Junior oratorical prize was awarded in 1910 to LeRoy MacFarland.

The corresponding prize for Women was awarded in 1910 to Nora Elizabeth Dodson.

THE JUNIOR DEBATE PRIZE.

Prizes are awarded to the two members of the Junior Class who evince superiority in debate at the Junior prize contest.

The prize was awarded in 1910 to Jesse Kimmel Spurgeon and Norman Gould Oliver.

THE HERBERT TUSTIN PRIZE.

In memory of his deceased son, the late Professor Francis Wayland Tustin, Ph. D., of the Class of 1856, paid to the Trustees of the University the sum of five hundred dollars, "as the foundation of the HERBERT TUSTIN PRIZE FUND, the interest of which is to be forever paid annually as two prizes, in the proportion of fifteen dollars for the First Prize, and of ten dollars for the Second Prize, to the two students of the Senior Class who shall have attained the highest and the second highest standing in Psychology and Ethics (under such regulations for the pursuit of these studies as the Faculty of the College shall prescribe from time to time), and whose conduct for the last two years of their course in College shall have been without exception."

The first prize was awarded in 1910 to Porter Lloyd Benson, and the second to George Stanley Metzger.

THE HERBERT GOODMAN BARROWS PRIZE.

In memory of his son, the Reverend William Barrows, A. M., of the Class of 1867, paid to the Trustees of the University the sum of five hundred dollars, "as the foundation of the HERBERT GOODMAN BARROWS PRIZE FUND, the interest of which is to be forever paid annually as two prizes of equal amounts to the student or two students of the Senior Class who shall have attained the highest standing, respectively, in the Latin and in the Greek language and literature (under such regulations for the pursuit of these studies as the Faculty of the College shall prescribe from time to time), and whose conduct for the last two years of their course in College shall have been without exception."

The prize for excellence in Greek was awarded in 1910 to Isaac Newton Earle; the prize for excellence in Latin was awarded in 1910 to Jane Chapman.

THE CHAPLAIN J. J. KANE PRIZE.

The Reverend James J. Kane, A. M., Chaplain in the United States Navy, and a graduate from the Theological Department of this University, of the Class of 1867, has established a prize which is to be given annually to that member of the graduating class who delivers the best oration on Commencement Day.

The prize was awarded in 1910 to Max Conrad Wiant.

THE ANNA MOORE HARE PRIZE.

In memory of his daughter, Anna Moore Hare, the Reverend Calvin Aurand Hare, A. M., has established an annual prize in Logic, to be awarded to that student at graduation who shall have done the best work in Logic, regard being had both to the amount and the quality of the work.

The prize was divided in 1910 between Homer Blaine Hedge and Max Conrad Wiant.

SCHOLARSHIPS.

I. THE BUCKNELL SCHOLARSHIPS.

The William Bucknell Scholarships, twenty in number and of \$1,000 each, were established for the purpose of aiding worthy young men in securing an education which will increase their usefulness in life. The income from this fund is to be paid annually to twenty young men, in accordance with the rules which will be made known upon application to the Committee of Examination, consisting of the President of the University, H. S. Hopper, Esq., and Professor Rockwood.

II. SCHOLARSHIPS FOR MINISTERS' CHILDREN.

Scholarships upon the general foundation have been established for the children of ministers of the Gospel, of all denominations, in active service.

III. THE LIVINGSTON SCHOLARSHIPS.

Established from a legacy of M. B. Livingston, twenty-two in number, are available for students for the ministry.

IV. THE LONGAN SCHOLARSHIP.

The Longan Scholarship, established from a legacy of O. W. Longan, Esq., is available for a student for the ministry from Lycoming County, Pennsylvania.

V. THE LEWIS E. JONES SCHOLARSHIP.

Was established from a legacy of the late Lewis E. Jones, and is available for students of Welsh descent to the amount of the income from five hundred dollars.

VI. THE JOHN HOWARD HARE SCHOLARSHIP.

Established by the Reverend Calvin Aurand Hare, A. M., in memory of his son, John Howard Hare, available for a student for the ministry upon recommendation of the Pennsylvania Baptist Education Society and the President of the University.

VII. THE VELOLA E. HALL SCHOLARSHIP.

Established by the Reverend Henry Chandler Hall, A. M., Class of 1882, in memory of his daughter, Velola E. Hall, A. B., Class of 1904, available for a student in the Women's College.

VIII. THE MEDICO-CHIRURGICAL SCHOLARSHIP.

The Medico-Chirurgical Medical College of Philadelphia offers a scholarship covering tuition in that college to the student from Bucknell University who evinces the best preparation and aptitude for medical work.

IX. THE PHILADELPHIA ALUMNÆ SCHOLARSHIP.

This scholarship, founded by the Philadelphia Alumnæ Club, is available for a young woman student from Philadelphia.

X. THE GENERAL MILLER SCHOLARSHIPS.

Ten scholarships have been established by Major-General Charles Miller, A. M., to be awarded to worthy members of the graduating class.

XI. ANNUAL SCHOLARSHIPS.

A number of persons have established annual scholarships for the aid of young men or women attending college. Information concerning ministerial and annual scholarships can be obtained from the President of the University.

EXTRA STUDIES.

In order to promote special scholarship in the several departments of study the following provision has been made:

1. Any student who has obtained an average of 9 in the studies of the previous term may take special work in any department of the College under the direction of the Professor of that department.

2. Such work must be assigned by the Professor, and the method of study described by him.

3. If the student shall attain an aggregate average of 9 in all the studies of the current term, and pass a satisfactory examination in the voluntary study, the work shall be credited to him.

4. Only one such study may be pursued by any one student during any one term. A student may also take two such minor studies or one such major study in the Summer vacation.

5. The Professor with whom the student is working shall have the privilege of requiring a partial examination on the work done at any time during the term, and there may be regular recitations at the Professor's option.

6. The amount and quality of minor work shall be taken into account in awarding honors at graduation, but is not counted toward any degree.

EXPENSES.

The College charges amount to \$130 per annum, for those who room in the College buildings, and \$120 for those who room in the town. The College charges include library fee, gymnasium fee, and other incidental fees common to all students, as well as tuition. Tuition is rated at \$50 per annum, and is included in the College charges. Students in the Course in Civil, Electrical or Mechanical Engineering are charged \$5 per term extra. Students in the other Courses who take an engineering subject are charged the same rates as students in engineering. This charge is for the regular work; when a fourth study is taken, an extra charge of \$10 is made. Graduation fee and diploma, \$10. Masters' Degree and Diploma, \$10.

The Study Rooms in the Main College are so arranged that two students occupy the same study. The Dormitories are intended to accommodate only one person, so that each student has his own private sleeping room. These are furnished with spring bedsteads. The student must supply himself with all other furniture. Students are responsible for damage to their rooms, whether it be done when they are present in the room or absent from it.

If a student occupy a study by himself, the charges for room-rent and private fuel will be doubled.

An extra charge is made for electric lighting of private rooms.

An extra charge ranging from \$5 to \$10 per term is also charged for rooms in the East and in the West College.

An additional charge is made for rooms cared for by the Institution.

Young men in the Collegiate Department, who so desire, can have furnished rooms in the West College, with board in the Academy.

Young women in the Collegiate Department room and board in the Women's College. The standard annual charge for board, tuition, furnished room, heating, lighting, is \$300. An extra charge for choice rooms in the Bucknell Cottage and in New Cottage, ranging from \$5 to \$10 per term, is made.

The assignment of rooms is for one year, and is made the first Monday morning in June, immediately after the devotional exercises in Bucknell Hall. Students from a distance will save inconvenience by applying to the Registrar for a room before the term opens. A deposit of \$10 is required when a room is chosen. This amount is credited upon the regular term bills. Should a student for good reasons be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

In the Laboratories students pay for chemicals used and for apparatus broken or damaged. In the chemical laboratory \$5 per term is charged for gas, water, and general chemicals for each course, except Courses 1 and 2, for which the charge is \$2.50. A deposit of \$5 per course is required to cover breakage and cost of extra chemicals.

A small fee is charged also in each of the elective courses in the departments of Mechanics and of Organic Science and in Surveying and Engineering, for the use of instruments and for material used.

Before entering upon the experimental courses students must deposit with the Registrar security for materials used.

These charges must be paid in advance at the beginning of each term.

No student is entitled to his place in his class until he has made settlement with the Registrar.

Students can board in clubs at a cost of from \$2.00 to \$2.50 per week. Boarding can be obtained in private families at \$3.00 or \$4.00 per week, or at the table of the Bucknell Academy at \$3.50 per week. No self-boarding is allowed in the College buildings.

SIXTIETH ANNUAL COMMENCEMENT

WEDNESDAY, JUNE 22, 1910.

HONORS AT GRADUATION.

ORATIONS SUMMA CUM LAUDE.

KATHARINE ETHEL BAILEY,	BERTHA LAYCOCK GEIS,
PORTER LLOYD BENSON,	HOMER BLAINE HEDGE,
JANE CHAPMAN,	PHAREZ HUNTZINGER HERTZOG,
JOSEPH EARLE EDWARDS,	JESSE KIMMEL SPURGEON,
GEORGE CAMPBELL FETTER,	EMANUEL WARMKESSEL,
	MAX CONRAD WIAINT.

ORATIONS MAGNA CUM LAUDE.

PAUL JAMES ABRAHAM,	HOMER DAVID KRESGE,
JOSEPHINE BROWN,	GEORGE STANLEY METZGER,
CAMERON AVOY BUTT,	WEAVER WEDDELL PANGBURN,
GEORGE FRANK CASE,	RUBY GEORGIA PIERSON,
SAMUEL GREER COCHRAN,	ALICE CLARK PLATT,
ISAAC NEWTON EARLE,	HUGH ELLIS ROSER,
C. PARK EDMUNDS,	GEORGE BARTLEY SCHROYER,
GILBERT HAVEN FAGLEY,	CLARA LENORA SHELLHAMER,
MABEL CORNELIA GIBSON,	FLORENCE VIRGINIA STAUFFER,
MACARTHUR GORTON,	CHESTER JOSEPH TERRILL,
HELEN HARE,	KATHALYN VONHUTON VOORHIS,
EDWARD STANLEY HARTSHORN,	GRACE ETHEL WATKINS,
STELLA REBECCA HOUGHTON,	ELMER BILLINGFELT WOODS,
CHARLES MCCALLUM HOWELL,	CORA MAY WRIGHT.

ORATIONS CUM LAUDE.

JOHN CHARLES BANK,	JOSEPH LESLIE CONOVER,
CONRAD LESLIE BASKINS,	WINNIE VIOLA DICKSON,
FREDERIC WILLIAM BREIMEIER,	RAYMOND FISHER HAIN,
MILDRED BLACKWELL CATHERS,	JOHN WESLEY HALLIWELL,

ORATIONS CUM LAUDE—Continued

MABEL ELIZABETH JOHNSON,	EUGENE PAUL SMITH,
ROBERT LYNNESS JONES,	ELIZABETH STAGE,
RAYMOND JEWETT MAPLES DEN,	ANNE STEINFURST,
GEORGE FREDERICK MITCH,	HOPE BIEBER STERNER,
JENNIE FRED A MOHRING,	ALBERT KNORR STOCKE BRAND,
AMY JULIA PARK,	ERIE MAE TEED,
NEWTON RITNER QUINTON,	IRVING ALLEN TIMLIN,
SARA MATILDA RAY,	LOUIS JAMES VELTE,
ROBERT JACOB SAYLOR,	EVA EUNICE WEDDLE,
JOHN GURNEY SHOLL, JR.,	GEORGIA LUCETTA WEDDLE,
CHARLES NORMAN SILMAN,	VIOLA EDNA WILHELM,
MARY SLAWSON,	CHARLEMAGNE TOWER WOLFE.

DEGREES CONFERRED ON EXAMINATION.

MASTER OF ARTS.

AMOS ETHAN BARTON,	MATTHEW EMERSON HAGGERTY,
W. SCOTT BOOTH,	HORACE BROWN KING,
LEVI CARL,	ELMER HENRY MEYERS,
JOSEPH EARLE EDWARDS,	HOMER DERIAL PEASE,
JAMES EDWARD ELLIOT,	EDWIN WILDE SAYLOR,
WM. FREDERICK ELLSESSER,	CLARK HENRY WEBSTER SNYDER,
HAVARD GRIFFITH,	ABRAM PIERCE WALTZ.

BACHELOR OF ARTS.

CONRAD LESLIE BASKINS.....	North Platte, Neb.
PORTER LLOYD BENSON.....	Waterford
FREDERIC WILLIAM BREIMEIER.....	Trevorton
JOSEPHINE BROWN.....	Allenwood
MILDRED BLACKWELL CATHERS.....	Flemington, N. J.
JANE CHAPMAN.....	Pittsburg
WINNIE VIOLA DICKSON.....	Akron, Ohio
ISAAC NEWTON EARLE.....	Lewisburg
JOSEPH EARLE EDWARDS.....	Wilmington, Del.
GEORGE CAMPBELL FETTER.....	St. Clair
WILLIAM HAYES GATEHOUSE.....	Lewisburg
BERTHA LAYCOCK GEIS.....	Belvidere, N. J.

BACHELOR OF ARTS—Continued

JOHN WESLEY HALLIWELL.....	Kane
HELEN HARE.....	Lewisburg
HOMER BLAINE HEDGE.....	Scenery Hill
STELLA REBECCA HOUGHTON.....	Lewisburg
MABEL ELIZABETH JOHNSON.....	Mt. Carmel
GEORGE STANLEY METZGER.....	Montgomery
GEORGE FREDERICK MITCH.....	Philadelphia
JENNIE FREDA MOHRING.....	Lancaster
WEAVER WEDDELL PANGBURN.....	Elizabeth
RUBY GEORGIA PIERSON.....	Hampton, Va.
SARAH LOWRY PAUP.....	Milton
SARA MATILDA RAY.....	Pittsburg
MARY SLAWSON.....	Tunkhannock
EUGENE PAUL SMITH.....	Bloomsburg
JESSE KIMMEL SPURGEON.....	Uniontown
FLORENCE VIRGINIA STAUFFER.....	Millville, N. J.
ANNE STEINFURST.....	Titusville
ALBERT KNORR STOCKEBRAND.....	Denver
GEORGE THORNLEY STREET, JR.....	Pittsburg
CHESTER JOSEPH TERRILL.....	Peter's Creek
LOUIS JAMES VELTE.....	Philadelphia
EMANUEL WARMKESSEL.....	Landingville
GRACE ETHEL WATKINS.....	Scranton
MAX CONRAD WIAINT.....	Connellsville
VIOLA EDNA WILHELM.....	East Orange, N. J.
ELMER BILLINGFELT WOODS.....	Reading

BACHELOR OF PHILOSOPHY.

JOHN RANCK BELL.....	Lewisburg
CLYDE WILLIAM CRANMER.....	South Williamsport
FRANK MURRAY JENNER.....	Troy
HOMER DAVID KRESGE.....	Scranton
RAYMOND JEWETT MAPLEDSEN.....	Springfield, Mass.
FRANK HALFPENNY PAINTER.....	Muncy
AMY JULIA PARK.....	Montandon
WILLIAM JOSEPH SCHULTZ.....	Lewisburg
ELIZABETH STAGE.....	Clearfield
IRVING ALLEN TIMLIN.....	Clarion
CHARLEMAGNE TOWER WOLFE.....	Lewisburg
CHARLES E. YOUNG.....	Lewisburg

DEGREES IN SCIENCE.

I. THE SECOND DEGREE IN GENERAL SCIENCE.

JOHN AMMON HESS,	RALPH FREDERICK KOONS,
THEODORE BLAND HOY,	LEE RUSSELL RANCK,
RILEY HARRISON KAUFFMAN,	GEORGE ALANSON RIGGS,
GEORGE EDWARD WEBSTER.	

II. FIRST DEGREE IN GENERAL SCIENCE.

PAUL JAMES ABRAHAM.....	Smithfield
KATHERINE ETHEL BAILEY.....	Wellsboro
FLOYD DAYTON BEEMER.....	Clark's Summit
EARL HARLAMAN BOWMAN.....	Allentown
SAMUEL GREER COCHRAN, PH. B.....	Lewisburg
FRANK SAUNDERS EAKELEY.....	Newark, N. J.
ROY AUSTIN FETTERMAN.....	Centralia
MABEL CORNELIA GIBSON.....	Ulysses
GEORGE BAILEY HARRIS.....	Detroit, Mich.
DAISY VALLEY HEGARTY.....	Madera
EMILY ANGELINE LANE.....	Lane's Hill
SARAH MCFARLAND.....	Watsonstown
GEORGE HOWARD NORTHROP.....	Monroetown
DAVID JESSE PARK.....	Montandon
ALICE CLARK PLATT.....	New Haven, Conn.
NEWTON RITNER QUINTON.....	Ariel
EDWIN CLYDE REBER.....	Vineland, N. J.
CLARA LENORA SHELLHAMER.....	New Ringgold
JOHN GURNEY SHOLL, JR.....	Burlington, N. J.
ERIE MAE TEED.....	Oregon Hill
KATHALYN VONHUTON VOORHIS.....	Peterson, N. J.
EVA EUNICE WEDDLE.....	West Newton
GEORGIA LUCETTA WEDDLE.....	West Newton
CORA MAY WRIGHT.....	Lewisburg

III. FIRST DEGREE IN BIOLOGY.

RAYMOND FISHER HAIN.....	Bernville
PHAREZ HUNTZINGER HERTZOG.....	Ephrata
CHARLES NORMAN SILMAN.....	St. Marys

IV. FIRST DEGREE IN CHEMISTRY.

ALEXANDER SHERWOOD.....	Waterford
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V. FIRST DEGREE IN CIVIL ENGINEERING.

CAMERON AVOY BUTT.....	New Midway, Md.
JOSEPH LESLIE CONOVER.....	Atlantic City, N. J.
GEORGE PARSONS DRUCKENMILLER.....	Sunbury
MACARTHUR GORTON.....	Smethport
EDWARD STANLEY HARTSHORN.....	Perth Amboy, N. J.
CHARLES MCCALLUM HOWELL.....	Northumberland
ROBERT LYNNESS JONES.....	Franklin
MICHAEL JOSEPH McDONOUGH.....	Westmoor
HUGH ELLIS ROSER.....	Woodsboro, Md.
ROBERT J. SAYLOR.....	Woodsboro, Md.
ROBERT BARTLEY SCHROYER.....	Lancaster
PAUL LEWIS SILVIUS.....	Sunbury
WESLEY LEE SPROUT.....	Picture Rocks
HOPE BIEBER STERNER.....	Dewart
HARRY MORRISS WALTER.....	Harrisburg

VI. FIRST DEGREE IN ELECTRICAL ENGINEERING.

JOHN CHARLES BANK.....	Newark, N. J.
GEORGE FRANK CASE.....	Troy
C. PARK EDMUNDS.....	Mill Village
GILBERT HAVEN FAGLEY.....	Mt. Carmel
PHILIP ALFRED RANDLE.....	Philadelphia

COMMENCEMENT ADDRESSES

Baccalaureate Sermon.....	THE PRESIDENT
Sermon, Education Society.....	REV. PERCIVAL F. LYNCH, A. M.
Address before the Alumni Association,	
	WILLIAM BOYD SHEDDAN, A. M.
Poem before the Alumni Association...	BLANCHE ALLYN BANE, A. M.
Annual Address.....	SHAILER MATHEWS, LL. D.
Commencement Address.....	THE PRESIDENT

TEACHERS' PERMANENT CERTIFICATES.

Awarded by the State of Pennsylvania to Graduates of Bucknell College, 1909-1910.

CARL L. MILLWARD.....	Lewisburg
WILLIAM C. HULLEY.....	Ralston
OLIVE SCHILLINGER.....	Ben Avon
EARL AUSTIN MORTON.....	Dravosburg
THOMAS WOOD.....	Muncy
URSULA D. PARMLEY.....	Mahanoy City
MARY ISABEL BOWER.....	Ridley Park
STANTON R. SMITH.....	West Chester
NORMAN E. HENRY.....	Williamsport
GORDON EVANS.....	Scranton
CHAS. M. GRIMINGER.....	Osceola Mills
JOSEPHINE BROWN.....	Allenwood
ERIE MAY TEED.....	Lloyd
IRVIN A. TIMLIN.....	Clarion
FRANK H. PAINTER.....	Muncy
GERTRUDE A. MYERS.....	Williamsport
CLYDE W. CRANMER.....	Williamsport
CHAS. D. COOPER.....	Millersville

ALUMNI ASSOCIATIONS

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Secretary, PROF. GUIDO CARL LEO RIEMER, PH. D., Lewisburg.

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President, T. A. K. GESSLER, D. D., New York City.

Secretary, ANDREW GREGG LOOMIS, A. B., LL. B., New York City.

The Alumni Club of Pittsburg.

President, CARL C. LAW, A. M., Pittsburg.

Secretary, ROY G. BOSTWICK, A. M., Pittsburg.

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President, A. R. E. WYANT, PH. D., Chicago.

Secretary, JOSEPH C. HAZEN, PH. B., Chicago.

The Alumni Club of Northeastern Pennsylvania.

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Secretary, JOHN S. WRIGHTNOUR, D. D., Scranton.

The Alumni Club of Harrisburg.

President, JOHN C. NISSLEY, A. M., ESQ., Harrisburg.

Secretary, HARVEY F. SMITH, M. D., Harrisburg.

The Alumni Club of Washington City.

President, HENRY H. BLISS, A. M., ESQ., Washington, D. C.

Secretary, JOHN C. HOSTETTER, Washington, D. C.

The Alumni Club of Central Pennsylvania.

President, JUDGE MARTIN BELL, A. M., Hollidaysburg.

Secretary, S. F. FORGEUS, D. D., Huntingdon.

The Alumni Club of Williamsport.

President, PROF. PERCY M. BULLARD, A. B., Williamsport.

Secretary, HARRY CHESTER FITHIAN, A. M., ESQ., Williamsport.

The Alumni Club of Lewisburg.

President, LEROY T. BUTLER, Lewisburg.

Secretary, LEO L. ROCKWELL, Lewisburg.

The Alumni Club of Sunbury.

President, GEORGE EDWARD DEPPEN, A. B., ESQ.

Secretary, CULLEN FRAZER SHIPMAN, A. B., ESQ.

NAMES OF STUDENTS.

GRADUATE STUDENTS.

NAME.	MAJOR SUBJECT.	RESIDENCE.
EDNA LOUISE BACON, A. B.,	<i>Classics.</i>	Dividing Creek, N. J.
IRVIN ALBERT BARTHOLEMEW, SC. B.,	<i>Engineering.</i>	Nyssa, Ore.
ELBINA LAVINIA BENDER, A. B.,	<i>English Literature.</i>	Lewisburg
MARSHALL LEON BENN, SC. B.,	<i>Science.</i>	Coudersport
CHARLES ANTHONY BERNHARD, A. B.,	<i>Jurisprudence.</i>	Gwynedd Valley
WALTER HENRY BERTIN, A. B.,	<i>Political Science.</i>	Williamsport
BENJAMIN FRANKLIN BIEBER, A. B.,	<i>Sociology.</i>	Center Hall
ELBERT LITTLE BLAKESLEE, PH. B.,	<i>English.</i>	Mendham, N. J.
MARY ISABELLE BOWER, SC. B.,	<i>Library Economics.</i>	Ridley Park
JOHN BENJAMIN BOYER, SC. B.,	<i>Mathematics.</i>	Milroy
WALTER BRINKER, SC. B.,	<i>Engineering.</i>	Seattle, Wash.
MINNIE ELIZABETH BROBST, A. B.,	<i>Latin.</i>	Sunbury
CHARLES LUCAS BROMLEY, A. B.,	<i>Philosophy.</i>	Rochester, N. Y.
KATHARINE DILL BROWN, SC. B.,	<i>Mathematics.</i>	Philadelphia
PERCIVAL DEWEES BROWNING, A. B.,	<i>Engineering.</i>	Robertsdale
PETER GARFIELD COBER, A. B.,	<i>Jurisprudence.</i>	Wilkinsburg
HAROLD NEWTON COLE, PH. B.,	<i>Organic Science.</i>	Cleveland, Ohio

NAME.	MAJOR SUBJECT.	RESIDENCE.
CLARENCE BURNAP COMSTOCK, SC. B.,	<i>Jurisprudence.</i>	Lewisburg
EDWARD CARROLL CONDUCT, PH. B.,	<i>Greek.</i>	Newton Center, Mass.
WALTER MADISON CORLL, A. B.,	<i>Literature.</i>	Hughesville
MARY PROTHEROE DAVIES, SC. B.,	<i>Literature.</i>	Scranton
RAYMOND JOHN DAVIES, A. B.,	<i>History.</i>	Waverly
EMMA REBEKAH EBLING, A. B.,	<i>Language.</i>	Williamsport
JOHN ROY FARR, A. B.,	<i>History.</i>	Muncy
NEWTON CROMWELL FETTER, JR., A. B.,	<i>Philosophy.</i>	Rochester, N. Y.
WALLACE WILMER FETZER, PH. B.,	<i>History.</i>	Sunbury
CHARLES CARPENTER FRIES, A. B.,	<i>Greek Testament.</i>	Lewisburg
FRANK HERMAN FRITZ, A. B.,	<i>History.</i>	Wilkes-Barre
WILLIAM HAYES GATEHOUSE, A. B.,	<i>History.</i>	Selinsgrove
FRANK KEMP GIBSON, A. B.,	<i>Philosophy.</i>	Rochester, N. Y.
MARIA MAUD GODDARD, A. B.,	<i>Classics.</i>	New Orleans, La.
MAURICE FRANK GOLDSMITH, A. B.,	<i>Organic Science.</i>	Pittsburg
DAVID ALBERT GREEN, SC. B.,	<i>Pedagogy.</i>	Lock Haven
JAMES ANDREWS GROFF, SC. B.,	<i>Engineering.</i>	Greensburg
HORACE LEROY HALL, A. B.,	<i>History.</i>	Sharon
RALPH WOMELSDORF HALLER, SC. B., A. M.,	<i>Modern Language.</i>	Mercersburg
JOHN WESLEY HALLIWELL, A. B.,	<i>Language.</i>	Bloomsburg
ROY HANNA, PH. B.,	<i>History.</i>	Mayaguez, P. R.

NAME.	MAJOR SUBJECT.	RESIDENCE.
CLARA ELEANOR HARMAN, A. B.,	<i>Literature.</i>	Montoursville
GEORGE BAILEY HARRIS, SC. B.,	<i>Organic Science.</i>	Detroit, Mich.
SPENSER TILLINGHAST HARRIS, A. B.,	<i>Engineering.</i>	Lewisburg
GEORGE WILLIAM HAWK, SC. B.,	<i>Organic Science.</i>	Tower City
AMMON GROSS HESS, SC. B.,	<i>Organic Science.</i>	Philadelphia
CLARA MAUD HUMMEL, SC. B.,	<i>Literature.</i>	Kratzerville
ELMER AZIMA HUMMEL, A. B.,	<i>Science.</i>	Kratzerville
JOHN FARL HUMMER, SC. B.,	<i>Biology.</i>	Potsdam, N. Y.
WALTER JARRETT, SC. B.,	<i>Jurisprudence.</i>	Sunbury
HENRY S. JONES, PH. B.,	<i>Pedagogy.</i>	Plymouth
LEON ELLISON JONES, SC. B.,	<i>Engineering.</i>	Schenectady, N. Y.
JAMES LLOYD KALP, PH. B.,	<i>Economics.</i>	Mt. Pleasant
WILLIAM LAWRENCE KALP, A. B.,	<i>Science.</i>	Mt. Pleasant
RACHEL ALLIE KANARR, A. B.,	<i>Pedagogy.</i>	Nyack, N. Y.
WILLIAM CARPENTER KELLY, SC. B.,	<i>Organic Science.</i>	Lewisburg
GEORGE WASHINGTON KERSCHNER, A. B.,	<i>History.</i>	Chester
ROYAL IVAN KNAPP, A. B.,	<i>Education.</i>	Union City
CHARLES WYANT KRAMER, SC. B.,	<i>Engineering.</i>	Oil City
EDWARD CHARLES KUNKLE, A. B.,	<i>History.</i>	Wilkes-Barre
ONESIMUS GEORGE LANGFORD, A. B.,	<i>History.</i>	West Pittston
CURTIS COOK LESHER, PH. B.,	<i>Jurisprudence.</i>	Lewisburg

NAME.	MAJOR SUBJECT.	RESIDENCE.
IDA EVALINE LUCHSINGER, A. B.,	<i>History.</i>	West Pittston
ROBERT BRUCE MACKEY, PH. B.,	<i>Organic Science.</i>	Waverly
JOSEPH CIPRIANO MACRO, A. B.,	<i>Jurisprudence.</i>	New York City
INEZ MAPLEDEN, A. B.,	<i>Pedagogy.</i>	Springfield, Mass.
CHARLES STEPHENS MARSH, SC. B.,	<i>Pedagogy.</i>	Saltsburg
JOHN HENRY MATHIAS, PH. B.,	<i>Philosophy.</i>	Rochester, N. Y.
FRANCIS LEROY McCAULEY, A. B.,	<i>New Testament Greek.</i>	Buffalo, N. Y.
JOSEPH EDWARD MILLEN, PH. B.,	<i>Literature.</i>	Burgettstown
JENNIE FREDA MOHRING, A. B.,	<i>Philosophy.</i>	Johnsonburg
MARY MONTFORT MOLL, A. B.,	<i>English.</i>	Mahanoy City
ROBERT BRUCE MORRIS, A. B.,	<i>Philosophy.</i>	Philadelphia
ANNA ELIZABETH NOAKER, SC. B.,	<i>German.</i>	Spring Valley, Ill.
WALTER LEROY NOLL, SC. B.,	<i>Pedagogy.</i>	Great Neck, L. I., N. Y.
HELENA MAE OLDS, PH. B.,	<i>German.</i>	Manasquan, N. J.
FRANK HALFPENNY PAINTER, PH. B.,	<i>History.</i>	Jersey Shore
WEAVER WEDDELL PANGBURN, A. B.,	<i>History.</i>	Lewisburg
JAMES THEODORE PARK, SC. B.,	<i>History.</i>	Montandon
GILBERT SOMERS PEREZ, SC. B.,	<i>French Literature.</i>	Baliuag, P. I.
CASIMIR PERRIER, SC. B.,	<i>Science.</i>	Pawtucket, R. I.
WILLIAM WALLACE PORTSER, SC. B.,	<i>Engineering.</i>	Clayton, Del.
THOMAS BENJAMIN POWELL, A. B.,	<i>Church History.</i>	New Haven, Conn.

NAME.	MAJOR SUBJECT.	RESIDENCE.
CHESTER BENJAMIN RENN, A. B., <i>History.</i>		South Williamsport
HARVEY DELROY REESE, SC. B., <i>Science.</i>		Igloo, Alaska
ALLEN GERALD RITTER, PH. B., <i>Literature.</i>		Deer Lodge, Mont.
STANLEY HERBERT ROLFE, A. B., <i>History.</i>		Nanticoke
CHARLES STILLWELL ROUSH, A. B., <i>Philosophy.</i>		Winfield
JOHN CALVIN SANDERS, A. B., <i>Hebrew.</i>		Turtle Creek
OLIVE SCHILLINGER, A. B., <i>English Literature.</i>		Ben Avon
SILAS HOWARD SCHOCH, A. B., <i>Political Science.</i>		Selinsgrove
GEORGE BARTLEY SCHROYER, SC. B., <i>Engineering.</i>		Lancaster
JACOB HARRY SCHUCH, SC. B., <i>Engineering.</i>		Lincoln, Neb.
HELEN AGATHA SELINGER, SC. B., <i>Science.</i>		Erie
CLARA SENORA SHELLHAMMER, SC. B., <i>Organic Science.</i>		New Ringgold
ROBERT FRANCIS SHEPPARD, SC. B., <i>Jurisprudence.</i>		Cedarville, N. J.
JAMES HARRY SHOEMAKER, SC. B., <i>Literature.</i>		Slippery Rock
FRANKLIN ISAAC SIGMUND, A. B., <i>Education.</i>		Ebensburg
LILA MABEL SILL, PH. B., <i>Literature.</i>		Kane
AMANDUS M. SMITH, A. B., <i>Mathematics.</i>		Elkhart, Ind.
ARTHUR ANSON SMITH, PH. B., <i>Jurisprudence.</i>		Williamsport
STANTON REINHART SMITH, SC. B., <i>Biology.</i>		West Chester
WALLACE JAMES SNYDER,, SC. B., <i>Chemistry.</i>		Edinboro
ROBERT MCCURDY STEELE, PH. B., <i>Language.</i>		Clarion

NAME.	MAJOR SUBJECT.	RESIDENCE.
ANTHONY STEINHILPER, A. B.,	<i>Latin.</i>	Wilmington, Del.
JOHN RAYMOND STRATTON, A. B.,	<i>Jurisprudence.</i>	Blossburg
MARTHA JANE THOMAS, PH. B.,	<i>German.</i>	Frostburg, Md.
LOUIS JAMES VELTE, A. B.,	<i>Theology.</i>	Philadelphia
KATHALYN VONHUTON VOORHIS, SC. B.,	<i>Organic Science.</i>	Paterson, N. J.
CHARLES CARROLL WAGNER, SC. B.,	<i>Chemistry.</i>	Madison, S. D.
ELI SLIFER WALLS, SC. B.,	<i>Organic Science.</i>	Pittsburg
ALVIN MONROE WEAVER, A. B.,	<i>Political Science.</i>	Williamsport
ALFRED MATTHEWS WHITBY, A. B.,	<i>History.</i>	Rochester, N. Y.
SAMUEL GARBER WILLIAMS, SC. B.,	<i>Jurisprudence.</i>	Waynesboro
CLIFFORD VERNON WILLIAMSON, PH. B.,	<i>Pedagogy.</i>	Perth Amboy, N. J.
FRANK LANDIS YOST, A. B.,	<i>History.</i>	Milton
JOHN ADAM YOUNG, PH. B.,	<i>Education.</i>	Lock Haven
HEBER WILKINSON YOUNGKEN, A. B.,	<i>Biology.</i>	Philadelphia
EMMA PORTER YOUNGMAN, A. B.,	<i>Modern Language.</i>	Danville
IRWIN WELLINGTON ZIEGLER, SC. B.,	<i>History.</i>	Oley

Graduate Students, 117.

THE SENIOR CLASS.

CLASS OF 1911.

NAME.	RESIDENCE.	ROOM.
ELMER MATLOCK APP,	<i>Haddonfield, N. J.</i>	No. 17, West Wing
JOHN HERBERT ARNOLD,	<i>Houtzdale.</i>	St. George Street
WILLIAM NEIL BAKER,	<i>Lewisburg.</i>	Market Street
MARC LUTHER BALDWIN,	<i>League, W. Va.</i>	No. 8, West Wing
ARTHUR THOMAS BAUMER,	<i>New Columbia.</i>	New Columbia
HARRY S. BOURNE,	<i>Lewisburg.</i>	North Second Street
JACOB KREIDER BOWMAN,	<i>Campbelltown.</i>	St. George Street
KATHARINE VIRGINIA BRONSON,	<i>Salem, N. J.</i>	Women's College
GROVER NEVIN BROWN,	<i>Friedensburg.</i>	No. 8, East College
CHARLES NORMAN BRUBAKER,	<i>Liverpool.</i>	No. 15, East College
KATHARINE GRAY CARPENTER,	<i>Woodbury, N. J.</i>	Women's College
GRACE BUCHANAN COBB,	<i>Coudersport.</i>	Women's College
HARRY RANKIN COULSON,	<i>Donora.</i>	No. 21, West College
NELSON KENNEDY CROSSMAN,	<i>Whites Valley.</i>	No. 1, East Wing
JOSEPH LESLIE CROWELL,	<i>Perth Amboy, N. J.</i>	St. George Street
HELEN WINIFRED CURE,	<i>Jermyn.</i>	Women's College
MARGARET CURTIS,	<i>Montrose.</i>	Women's College
FRANK GARFIELD DAVIS,	<i>Warsaw.</i>	No. 14, West Wing
RAYMOND CALEB DECKER,	<i>Kimbles.</i>	No. 19, West Wing

NAME.	RESIDENCE.	ROOM.
WOODS FREDERICK DERR,	<i>Watsontown.</i>	No. 113, East College
NORA ELIZABETH DODSON,	<i>Hazelton.</i>	Women's College
WALTER WILLIAM DUFF,	<i>New Castle.</i>	St. George Street
ARTHUR CLAY FAIRCHILD,	<i>Towanda.</i>	No. 27, West Wing
ALLAN MANCHESTER FITCH,	<i>Factoryville.</i>	No. 18, East College
MERNA JULIA GIFFIN,	<i>Croton Falls, N. Y.</i>	Women's College
JOHN WILLIAMS GRANDFIELD,	<i>Clarksboro, N. J.</i>	No. 2, West Wing
MATILDA YOUNG GOLDING,	<i>Lawrenceville, N. J.</i>	Women's College
FRANKLIN JOSEPH GRONDE,	<i>Cogan Valley.</i>	No. 16, East Wing
FRANK THOMAS HAMILL,	<i>New Florence.</i>	No. 2, West Wing
LESTER ABRAHAM HARRIS,	<i>Lewisburg.</i>	Market Street
CHARLES HUNTER HEACOCK,	<i>Turbotville.</i>	No. 8, West Wing
JOHN CLARENCE HILBISH,	<i>Northumberland.</i>	No. 81, East College
EDWARD LEISENRING HOWELL,	<i>Northumberland.</i>	No. 35, West College
ANDREW JOHN HUSTON,	<i>Tioga Center, N. Y.</i>	No. 94, West College
MORRIS VICTOR HUYETTE,	<i>Reading.</i>	No. 14, East Wing
MARY JAMESON,	<i>Danville.</i>	Women's College
JOHN KASE,	<i>Danville.</i>	St. George Street
ELIZABETH SIMPSON KATES,	<i>Millville, N. J.</i>	Women's College
GEORGE OREN KEISER,	<i>West Milton.</i>	West Milton
JOHN RAY KEISER,	<i>West Milton.</i>	West Milton

NAME.	RESIDENCE.	ROOM.
JULIA ALLEN KREMER,	<i>Watsontown.</i>	Watsontown
JOHN ROBERT KURTZ,	<i>Myerstown.</i>	No. 31, East College
WILLIAM ANDERSON LESHER,	<i>Benton.</i>	No. 93, West College
FREDERICK BRYTON LITTLE,	<i>Uniontown.</i>	No. 53, East College
HERBERT SPENCER LLOYD,	<i>Akron, Ohio.</i>	No. 12, East Wing
ROY ALLEN LONG,	<i>Northumberland.</i>	No. 2, East College
CHARLES LOSE, JR.,	<i>Williamsport.</i>	No. 34, West College
CHARLES LOVELAND, JR.,	<i>Hammonton, N. J.</i>	No. 37, West College
WALTER HERTZ MANN,	<i>Sunbury.</i>	No. 80, East College
SARA ELLA MEYER,	<i>Rebersburg.</i>	Women's College
FRED McALLISTER,	<i>West Pittston.</i>	St. George Street
NORMAN BLAIR McANULTY,	<i>Barnesboro.</i>	No. 40, West College
EVELYN HOPE McCASKIE,	<i>East Orange, N. J.</i>	Women's College
HELEN BROWN McCLURE,	<i>Watsontown.</i>	Watsontown
WILLIAM McCULLEN,	<i>Philadelphia.</i>	No. 55, East College
LEROY MACFARLAND,	<i>Trenton, N. J.</i>	No. 56, East College
LAURA ELLEN MCGANN,	<i>Lewisburg.</i>	North Third Street
FRANK CLARENCE McNAIR,	<i>Philadelphia.</i>	No. 11, East College
HAROLD McCLURE NEFF,	<i>Sunbury.</i>	No. 25, East College
DANIEL HENRY NESTER,	<i>New Ringgold.</i>	No. 14, East Wing
VIOLET DOUGLASS NISBET,	<i>West Pittston.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
NORMAN GOULD OLIVER,	<i>Burlington, N. J.</i>	No. 116, East College
JOHN WATSON PEOPLES,	<i>Jersey Shore.</i>	St. George Street
ELLIS CLYDE PERSING,	<i>Snydertown.</i>	No. 89, East College
CLARENCE KEISER PUGH,	<i>Pottsville.</i>	No. 16, West Wing
HESTER ELLEN PYLES,	<i>Camp Springs, Md.</i>	Women's College
GRETCHEN ANNETTE RADACK,	<i>Titusville.</i>	Women's College
ELEANOR GRAHAM RAUP,	<i>Milton.</i>	Milton
DORA MEACHAM RAYMOND,	<i>Coudersport.</i>	Women's College
WILLIAM FRANKLIN REDCAY,	<i>Reading.</i>	No. 44, East College
WALTER DANIEL RHOADES,	<i>Allentown.</i>	No. 58, East College
NICHOLAS WHITMAN ROSENBERG,	<i>Uniontown.</i>	No. 60, West College
JOHN ORAM LYTE ROSER,	<i>Woodsboro, Md.</i>	No. 14, East College
KATHRYN MARIE RYAN,	<i>Asbury Park, N. J.</i>	Women's College
EDGAR ANDREW SABLE,	<i>Lewisburg.</i>	No. 27, West Wing
RUTH SUMMERS SAFFORD,	<i>Montrose.</i>	Women's College
PAUL JASPER SANDERS,	<i>Mifflinburg.</i>	No. 10, West Wing
HELEN ANNE CLARK SCOTT,	<i>Scranton.</i>	Women's College
JAMES WESLEY SHIPE,	<i>Sunbury.</i>	Sunbury
LYMAN CYRUS SHREVE,	<i>Erie.</i>	No. 36, West College
ROBERT DEAN SISSON,	<i>Factoryville.</i>	No. 110, East College
FRED WILLIAM SMALL,	<i>Hammonton, N. J.</i>	No. 11, West Wing

NAME.	RESIDENCE.	ROOM.
HARRY LEE SMITH,	<i>Lewisburg.</i>	Lewisburg
EDGAR AMBROSE SNYDER,	<i>Weaversville.</i>	No. 60, East College
PAUL CLINTON SNYDER,	<i>Numidia.</i>	No. 88, East College
STUART WILLIAM SWEET,	<i>Utica, N. Y.</i>	No. 95, West College
HOWARD WARNER STARKWEATHER,	<i>Carbondale.</i>	No. 22, East Wing
BENJAMIN RUSSELL THATCHER,	<i>Unionville.</i>	No. 114 East College
JOHN WEBSTER TRAUGER,	<i>Revere.</i>	No. 22, East Wing
JONAS TUMAN,	<i>Atlantic Highlands, N. J.</i>	No. 60, West College
JAMES ARTHUR TYSON,	<i>Montgomery.</i>	St. George Street
JOSE ANDRES VILLALON,	<i>Puerto Plata, W. I.</i>	No. 43, East College
JOHN HERBERT WAITE,	<i>Lock Haven.</i>	No. 59, East College
HARRY REED WALTMAN,	<i>Millville, N. J.</i>	No. 23, East Wing
SUZANNA EMMA WEDDELL,	<i>Lewisburg.</i>	South Sixth Street
VERNA AMANDA WHITAKER,	<i>Millville, N. J.</i>	Women's College
	Seniors, 96.	

THE JUNIOR CLASS.

CLASS OF 1912.

NAME.	RESIDENCE.	ROOM.
EARL RUDOLPH BARTHOLOMEW,	<i>Lewisburg.</i>	Market Street
NELLIE RUTH BERIE,	<i>Lewisburg.</i>	Lewisburg
HENRY HARMON BLISS, JR.,	<i>Washington, D. C.</i>	No. 10, East College
CLARENCE BLAKE BREWER,	<i>Susquehanna.</i>	No. 45, West College
ALBERTA LILLIAN BRONSON,	<i>Girardville.</i>	North Third Street
ADA ETHEL BROOKS,	<i>Wellsboro.</i>	Women's College
MAZE RITTER CALLAHAN,	<i>Montoursville.</i>	Women's College
CECIL RUSSELL CHILDS,	<i>Truxton, N. Y.</i>	Women's College
JAMES FRANCIS CLARKE,	<i>Kane.</i>	St. George Street
FLORENCE MAY CLUM,	<i>Scranton.</i>	Women's College
VERA ZULEIKA COBER,	<i>San Juan, P. R.</i>	Women's College
LLOYD LANGDON COIL,	<i>Hopbottom.</i>	No. 30, East College
ALEXANDER CLEVELAND CONNER,	<i>Pittsburg.</i>	St. George Street
ELWOOD HARRIS COURTER,	<i>Basking Ridge, N. J.</i>	No. 4, West Wing
RALPH FREDERICK DAVENPORT,	<i>Plymouth.</i>	No. 27, East Wing
STANLEY POWELL DAVIES,	<i>Conshohocken.</i>	No. 9, East Wing
OLIVER SAMUEL DELANCEY,	<i>Blairsville.</i>	No. 15, West Wing
EDWARD PATCHIN DUFTON,	<i>Clearfield.</i>	No. 62, East College
WALTER SAMUEL EISENMENGER,	<i>Warrensville.</i>	No. 3, East Wing

NAME.	RESIDENCE.	ROOM.
WILLIAM WEBSTER EISTER,	<i>Lewisburg.</i>	Brown Street
HARRY BENNETT ENGLISH,	<i>Wyoming.</i>	No. 17, East Wing
HOWARD FARQUHAR,	<i>West Brownsville.</i>	No. 70, East College
JAY HUDSON FLECKENSTINE,	<i>Milton.</i>	Milton
VERA MILDRED FROST,	<i>Brookville.</i>	Women's College
WILLIAM ALFRED GOEHRING,	<i>Zelienople.</i>	No. 25, East Wing
FRANKLIN OSCAR GORSUCH,	<i>Finksburg, Md.</i>	No. 65, East College
COLEMAN JOHN HARRIS,	<i>Lewisburg.</i>	University Avenue
JAMES PARDON HARRIS,	<i>Lewisburg.</i>	University Avenue
JAMES EUGENE HART,	<i>West Pittston.</i>	No. 71, East College
FRANK RAHN HEAN,	<i>Harrisburg.</i>	St. George Street
EVA HIMMELREICH,	<i>Lewisburg.</i>	South Seventh Street
EARL EDWARD HINMAN,	<i>Monroeton.</i>	No. 29, East College
RUSSELL CONWELL HOFFMAN,	<i>Cheltenham.</i>	No. 19, West Wing
DALE DAVIS HOLLENBAUGH,	<i>Williamsport.</i>	St. George Street
FRANCIS HARPER HUTCHINSON,	<i>Sunbury.</i>	St. George Street
FREDERICK IGLER,	<i>Scranton.</i>	No. 50, East College
HOWARD JOHNSON,	<i>Wilmington, Del.</i>	No. 24½, East Wing
ALBERT AUGUST JORDAN,	<i>Philadelphia.</i>	No. 39, East College
EMMA ELIZABETH KEISER,	<i>Mt. Carmel.</i>	Women's College
FRANK LLOYD KERSTETTER,	<i>Nanticoke.</i>	No. 51, West College

NAME.	RESIDENCE.	ROOM.
PERCY POWERS KINNEMAN,	<i>Washington, N. J.</i>	No. 2, East Wing
FREDERICK LANGE, JR.,	<i>Audubon, N. J.</i>	No. 12, East Wing
HELEN LEVEGOOD,	<i>Jersey Shore.</i>	Women's College
LYMAN LLEWELLYN LISTER,	<i>Trenton, N. J.</i>	No. 11, West Wing
OLIVE MARIE LONG,	<i>Lock Haven.</i>	Women's College
DAVID A. MCNEAL,	<i>Canton.</i>	No. 20, West Wing
SALLIE SIDES MCSPARREN,	<i>Philadelphia.</i>	Women's College
ROBERT WILLIAM MEYER,	<i>Rebersburg.</i>	No. 62, West College
WILLIAM HENRY MILLER,	<i>Greenburr.</i>	No. 16, East Wing
HAROLD WILLIAM MUSSER,	<i>Lewisburg.</i>	South Third Street
MERTON MILES OGDEN,	<i>Leonta, N. Y.</i>	No. 15, West Wing
EDWARD ROY PARKE,	<i>Troy.</i>	St. George Street
PEARL IRENE REAM,	<i>Lewisburg.</i>	South Fifth Street
GEORGE FRANCIS REITER,	<i>Muncy.</i>	No. 16, East Wing
EVA MAY RITTENHOUSE,	<i>Granville.</i>	Women's College
JOHN HENRY RUFUS ROBERTS,	<i>Reading.</i>	No. 41, East College
FREDERICK VALENTINE ROCKEY,	<i>Lebanon.</i>	St. George Street
GRACE ROSSITER,	<i>Sunbury.</i>	Women's College
DAVIS CLIFFORD RUTH,	<i>Malvern.</i>	St. George Street
HELEN LAURA RUTH,	<i>Hanover.</i>	Women's College
PAUL DANIEL SCHREIBER,	<i>Allentown.</i>	No. 57, East College

NAME.	RESIDENCE.	ROOM.
ALICE PERAULT SCOTT,	<i>Milton.</i>	Milton
ROBERT ROWE SELLERS,	<i>Emmittsburg, Md.</i>	No. 2, West Wing
DAVID YEAKEL SIESHOLTZ,	<i>Alburtis.</i>	No. 31, East Wing
SUSAN CAROLINE SNYDER,	<i>Allentown.</i>	Women's College
LAWRENCE EMERSON SPROUT,	<i>Picture Rocks.</i>	No. 90, East College
ROBERT AUGUSTUS STOUGHTON,	<i>Lewisburg.</i>	Market Street
RUBY VANMINKA STUCK,	<i>Tower City.</i>	Women's College
HARRISON SCHUYLER SWEET,	<i>Utica, N. Y.</i>	St. George Street
WILLIAM GLENN TEGTMEIER,	<i>Conshohocken.</i>	No. 9, East Wing
JESSE ROY TYSON,	<i>Norristown.</i>	No. 53, West College
LOUIS ADAM WALDNER,	<i>Ashland.</i>	No. 61, East College
ARTHUR DAVID WALTZ,	<i>Hepburnville.</i>	No. 1, East Wing
JOHN SHERMAN WELCHONS,	<i>Falls Creek.</i>	No. 13, East Wing
VIOLET LOUISE ELEANOR WETTERAU,	<i>Hazleton.</i>	Women's College
DANIEL MAYNARD WISE,	<i>South Williamsport.</i>	No. 23, East Wing
OSCAR WOLF,	<i>Pforzheim, Germany.</i>	No. 86, West College

Juniors, 77.

THE SOPHOMORE CLASS.

CLASS OF 1913.

NAME.	RESIDENCE.	ROOM.
MINNIE M. ANDREWS,	<i>North Girard.</i>	Women's College
JOHN NEWTON ARNDT,	<i>Milton.</i>	Milton
JOLETTA MAY ARTHUR,	<i>Jersey City, N. J.</i>	Women's College
HELEN KING BARTOL,	<i>Lewisburg.</i>	University Avenue
BRIGHT WILKES BECK,	<i>Cressona.</i>	No. 34, East College
CHARLES BAKER BERNHART,	<i>Lewisburg.</i>	North Second Street
HANNAH CECIL BERTIN,	<i>South Williamsport.</i>	Women's College
JOHN RALPH BOGERT,	<i>Norristown.</i>	No. 74, East College
RICHARD HANSBER BOWLING, JR.,	<i>Norfolk, Va.</i>	No. 23½, West Wing
JOHN WESLEY BRESSLER,	<i>Slatington.</i>	No. 22, West Wing
MARY MARGARET BROWN,	<i>Braddock.</i>	South Front Street
EDWIN CHARLES BRUSH,	<i>Jackson.</i>	No. 20, East Wing
HUGH MAX BULLARD,	<i>Newberry.</i>	No. 64, West College
JAMES DANIEL COLLISON,	<i>Elizabeth.</i>	North Second Street
MILES ELTON DEAN,	<i>Altoona.</i>	No. 73, East College
CHANNING PONTIUS DERR,	<i>Lewisburg.</i>	Market Street
DAVID FORREST DUNKLE,	<i>Lewisburg.</i>	South Fifth Street
WALTER HERBERT EDWARDS,	<i>Wilmington, Del.</i>	No. 49, East College
FAYETTE CLINTON ESHELMAN,	<i>Franklin.</i>	No. 43, West College

NAME.	RESIDENCE.	ROOM.
HARRY SCHEIDY EVERETT,	<i>Slatington.</i>	No. 22, West Wing
ELMER ELLSWORTH FAIRCHILD,	<i>Lewisburg.</i>	Lewisburg
WALTER DAYTON FARLEY,	<i>Lewisburg.</i>	South Fourth Street
JOHN DIETREICH WITTICH FETTER,	<i>St. Clair.</i>	No. 118, East College
MARIAN FISCHLER,	<i>Wellsboro.</i>	Women's College
HOWARD VOELKER FISHER,	<i>Tamaqua.</i>	No. 63, West College
THOMAS JOHN FOLEY,	<i>Tamaqua.</i>	No. 83, East College
CHARLES ADAM FRYLING,	<i>Sunbury.</i>	No. 17, West Wing
HAZEL ETTA GALLOWAY,	<i>Lewisburg.</i>	North Fifth Street
FREDERICK KNAPP GETZ,	<i>Lewisburg.</i>	No. 24, West Wing
REBEKAH MONAGHAN GIBBONS,	<i>Dunmore.</i>	Women's College
CLARENCE ROSENBERRY GIBSON,	<i>Washington, N. J.</i>	No. 31, West Wing
MARWOOD BENJAMIN GLOVER,	<i>Collingdale.</i>	No. 12, East College
HOWARD MARSHALL GOEHRING,	<i>Zelienople.</i>	No. 25, East Wing
JAMES BOWEN GRIFFITH,	<i>Buffalo, N. Y.</i>	No. 84, East College
MAX GROSSMAN,	<i>Mt. Carmel.</i>	No. 29, West College
GEORGE FREEMAN HAINES,	<i>Winfield.</i>	No. 17, West Wing
BENJAMIN SOLOMON HARRIS,	<i>Lewisburg.</i>	Market Street
CHARLES DAVID HASSON,	<i>Windber.</i>	No. 54, East College
ORWILL VAN WICKLE HAWKINS,	<i>Freneau, N. J.</i>	St. George Street
RUTH TUSTIN HEINSLING,	<i>Altoona.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
CARLTON BALLARD HOOKER,	<i>Troy.</i>	No. 87, West College
ETHEL MARGARET HOTTENSTEIN,	<i>Milton.</i>	Milton
MARY JANE IREY,	<i>Danville.</i>	Women's College
LOGAN EARL JACKSON,	<i>Williamsport.</i>	No. 18, East Wing
ALEXIS WOOLMAN KEEN,	<i>Salem, N. J.</i>	No. 28, West Wing
HARRY XING KELLY,	<i>Brookville.</i>	No. 14, West Wing
BERTRAND KINNEMAN,	<i>Washington, N. J.</i>	No. 31, West Wing
MINNIE ETHEL MAYNARD,	<i>Williamsport.</i>	Women's College
GEORGE MIDDLETON,	<i>Edwardsville.</i>	No. 27, East Wing
HARWOOD MASON MILLER,	<i>Monroeton.</i>	No. 15, East Wing
MARY FLORENCE MITCHELL,	<i>Penn's Grove, N. J.</i>	Women's College
ANTHONY JAY MURRAY,	<i>Scranton.</i>	No. 31, West College
JAMES COOPER MURRAY,	<i>Olean, N. Y.</i>	No. 63, East College
JAMES FOCHT MCCLURE,	<i>Lewisburg.</i>	University Avenue
JOSEPH LESLIE MCKEAGUE,	<i>Millville, N. J.</i>	No. 21, East Wing
WINIFRED AUGUSTA NAYLOR,	<i>Williamsville, N. Y.</i>	Women's College
GEORGE EDWARD O'BRIEN,	<i>Clearfield.</i>	No. 47, East College
THOMAS ALOYSIUS O'LEARY,	<i>Wilkinsburg.</i>	No. 38, West College
FENWICK MERRION OPEL,	<i>St. Marys.</i>	No. 29, West Wing
CLAYTON ELMER PHILLIPS,	<i>Cressona.</i>	No. 72, East College
GEORGE THURMAN PIERSOL,	<i>Honey Brook.</i>	No. 66, West College

NAME.	RESIDENCE.	ROOM.
STERLING THOMAS POST,	<i>Dalton.</i>	No. 120, East College
MARY DELINDA POTTER,	<i>Center Hall.</i>	Women's College
GEORGE WILLIAM POTTS,	<i>Greensburg.</i>	St. George Street
HARTLEY CARR POWELL,	<i>Salem, N. J.</i>	No. 42, East College
ALBERT NORMAN REDELIN,	<i>Freeland.</i>	St. George Street
EARL MORGAN RICHARDS,	<i>Reading.</i>	No. 10, East Wing
LEONARD ANTHONY RICHARDSON,	<i>Elizabeth, W. Va.</i>	No. 9, West Wing
LEWIS PERRINE ROBINSON,	<i>Danville.</i>	St. George Street
ROBERT LEVI ROOKE,	<i>Winfield.</i>	No. 109, East College
CHARLES LOY SANDERS,	<i>Mifflinburg.</i>	Mifflinburg
CLAY SHOEMAKER SANDERS,	<i>Mifflinburg.</i>	Mifflinburg
VICTOR SCHMID,	<i>Philadelphia.</i>	No. 7, West College
LOUIS CARL SEABRIGHT,	<i>Martins Ferry, Ohio.</i>	No. 85, East College
ROBERT ROWE SELLERS,	<i>Emmitsburg, Md.</i>	No. 2, West Wing
HAROLD AUGUSTUS SHAFFER,	<i>Lewisburg.</i>	South Second Street
JOSEPH PARDOE SHEARER,	<i>Milton.</i>	Milton
EDWARD WETHERELL SMITH,	<i>Salem, N. J.</i>	No. 82, East College
HENRY GRIGGS WESTON SMITH,	<i>Bloomsburg.</i>	No. 32, East Wing
CHARLES HAMILTON STEELE,	<i>Washington.</i>	No. 67, West College
HENRY SMITH STEELE,	<i>New Alexandria.</i>	No. 108 East College
AMOS MILES STETLER,	<i>Middleburg.</i>	No. 112, East College

NAME.	RESIDENCE.	ROOM.
RALPH AMOS STILL,	<i>Danville.</i>	No. 107, East College
LESLIE WELLINGTON STOUT,	<i>Audubon, N. J.</i>	No. 40, East College
RALPH LEE TALBOT,	<i>Martins Ferry, Ohio.</i>	No. 86, East College
SAMUEL PAUL TEAMER,	<i>Malvern.</i>	No. 50, West College
HARRY WHITNEY TILTON,	<i>Lewisburg.</i>	North Third Street
BOYD HENRY WALTER,	<i>Kittanning.</i>	No. 26, East College
MARGARET CELESTE WEDDELL,	<i>Lewisburg.</i>	South Sixth Street
ALBERT BACON WINTER,	<i>Zelienople.</i>	No. 103, East College
HERMAN EMERSON ZEHNER,	<i>Tamaqua.</i>	No. 32, East College
	Sophomores, 91.	

THE FRESHMAN CLASS.

CLASS OF 1914.

NAME.	RESIDENCE.	ROOM.
WALTER THOMAS AFRICA,	<i>Huntingdon.</i>	University Avenue
DALE REESE ANGSTADT,	<i>Lewisburg.</i>	Lewisburg
RAYMOND LANCE APGAR,	<i>Trenton, N. J.</i>	No. 30, West Wing
CHARLES JACOB APPLGATE,	<i>Catasauqua.</i>	No. 17, East Wing
EARLE BUDD ARMSTRONG,	<i>Paulsboro, N. J.</i>	No. 29, East Wing
LEONARD BYNNER AUSTIN,	<i>Germantown.</i>	No. 30, West College
ROSWELL JAMES AYDLOTTE,	<i>Chester.</i>	No. 7, East College
NEVIN GEORGE BACHMAN,	<i>Kempton.</i>	No. 21, East Wing
LOIS BAER,	<i>Brooklyn, N. Y.</i>	Women's College
EVA LENA BAIR,	<i>Belvidere, N. J.</i>	Women's College
H. WALTER BAKER,	<i>Lancaster.</i>	No. 13, West Wing
WILLIAM T. BARNES,	<i>Sharon.</i>	No. 68, West College
RALPH EMERSON BELL,	<i>Munhall.</i>	No. 19, East Wing
DANIEL FLOYD K. BERTOLETTE,	<i>Manatawney.</i>	No. 12, West Wing
CHENEY KIMBER BOYER,	<i>Homestead.</i>	No. 28, East Wing
HARRY EARLE CAMPBELL,	<i>Shunk.</i>	No. 65, West College
FRANCES CLEVELAND CANNON,	<i>Milton.</i>	Milton
PERRY AQUILA CARIS,	<i>Tylersville.</i>	No. 32, East Wing
CLARENCE BARNABAS CARVER,	<i>Carmel, N. Y.</i>	No. 25, West College

NAME.	RESIDENCE.	ROOM.
FRIEDMAN HOLMES CATHRALL,	<i>West Pittston.</i>	No. 33, East College
GRACE COLVIN COLE,	<i>Dubois.</i>	Women's College
JEAN DOROTHY COLE,	<i>Dubois.</i>	Women's College
CHARLES ELLSWORTH COLEMAN,	<i>Boonton, N. J.</i>	No. 32½, West Wing
JAMES RUSSELL COOK,	<i>Trenton, N. J.</i>	No. 3, East College
OLIVE MANSFIELD COOPER,	<i>Cortland, N. Y.</i>	Women's College
DAYTON THOMAS CORSON,	<i>Paulsboro, N. J.</i>	No. 29, East Wing
SAMUEL HENRY COULTER,	<i>Lamney, Ireland.</i>	No. 94, East College
WILLIAM BRITTON CRAWFORD,	<i>South Brownsville.</i>	No. 53, West College
JOHN RUSSELL CRISWELL,	<i>Sharpsburg.</i>	No. 51, West College
ALLEN IRVINE DAVIS,	<i>Milton.</i>	Milton
RACHEL MIRIAM DAVIS,	<i>Woodstown, N. J.</i>	Women's College
HAROLD MACILVAINE DORRELL,	<i>Alloway, N. J.</i>	No. 77, East College
RUTH HORTENSE EDWARDS,	<i>Williamsport.</i>	Women's College
HELEN HORTENSE EEDE,	<i>Ballston Spa, N. Y.</i>	South Sixth Street
MINNIE IOLA ETZWEILER,	<i>Lewistown.</i>	Women's College
RALPH WILLIAM EVERALL,	<i>Sharon.</i>	No. 69, West College
WILLIAM HENRY EYSTER,	<i>Fisher's Ferry.</i>	No. 28, East Wing
WILLIAM BERT FETTER,	<i>Greensburg.</i>	No. 47, West College
RAYMOND TOOT FRANCIS,	<i>Sunbury.</i>	No. 56, West College
JASPER C. FRANTZ,	<i>Friendsville, Md.</i>	No. 54, West College

NAME.	RESIDENCE.	ROOM.
GUY LESTER FULLMER,	<i>Montoursville.</i>	No. 64, East College
JOHN LUKE GEHMAN,	<i>Martindale.</i>	No. 24, East Wing
EARL BALLARD GLOVER,	<i>Erie.</i>	No. 92, West College
HANNAH REEVES GLOVER,	<i>Haddonfield, N. J.</i>	Women's College
SIDNEY GRABOWSKI,	<i>Nanticoke.</i>	No. 89, West College
ALBERT DONALD GRAY,	<i>Altoona.</i>	No. 48, East College
GEORGE THOMAS GROVE,	<i>Harrisburg.</i>	No. 78, East College
WELLARD TYSON GUFFEY,	<i>Milton.</i>	Milton
ROBERT CLARK HAGAN,	<i>Uniontown.</i>	No. 52, East College
FLORENCE ETHEL HALLIWELL,	<i>Kane.</i>	Women's College
FRANK RUSSELL HAMBLIN,	<i>Lewisburg.</i>	St. George Street
MARIAN KATHRYN HARMAN,	<i>Mantoursville.</i>	Women's College
WALTER WILLIAM HARRIS,	<i>Lewisburg.</i>	University Avenue
JOSEPH MUR HILLMAN,	<i>Shamokin.</i>	No. 12, West Wing
JAMES RALPH IRWIN,	<i>Schuyler.</i>	No. 18, West Wing
ARTHUR RANDQUIST JOHNSON,	<i>Erie.</i>	No. 30, East Wing
DOROTHEA MARGUERITE JONES,	<i>Minersville.</i>	Women's College
GEORGE THOMPSON KEECH, JR.,	<i>Netcong, N. J.</i>	No. 11, East Wing
MILDRED RUTH KIRK,	<i>Clearfield.</i>	South Front Street
LAURA MARGARET KREISHER,	<i>Milton.</i>	Milton
RALPH WARREN KUNKLE,	<i>Lewisburg.</i>	Lewisburg

NAME.	RESIDENCE.	ROOM.
HENRY GEORGE KUYL,	<i>Paterson, N. J.</i>	No. 30, West Wing
LELAND PROBASCO LANING,	<i>Bridgeton, N. J.</i>	No. 26, West College
ERNEST OLOF LINDBERG,	<i>Sag Harbor, N. Y.</i>	No. 42, West College
CHARLES WALTER LOTTE,	<i>Paterson, N. J.</i>	No. 92, East College
WALLACE CLINE LOWTHER,	<i>Tyrone.</i>	No. 5, East College
LEWIS FREDERICK LYNE, JR.,	<i>Jersey City, N. J.</i>	No. 111, East College
GEORGE HUMMEL MADTES,	<i>Punxsutawney.</i>	No. 26, West Wing
ARTHUR SAWYER MAHONY,	<i>Passaic, N. J.</i>	No. 27, West College
JENNIE MATHEWS MATHEWS,	<i>New Britain.</i>	Women's College
FRANCES TERRY McNALL,	<i>Muncy.</i>	Women's College
NORMAN MITTERLING,	<i>Lewisburg.</i>	St. George Street
RALPH HERMAN MOORE,	<i>Slippery Rock.</i>	No. 24, East College
THOMAS EDWARD MOORE,	<i>Las Animas, Ccl.</i>	No. 46, West College
HOWARD BURTON MUSSER,	<i>South Williamsport.</i>	No. 13, West Wing
RALPH ANDREW NEFF,	<i>Erie.</i>	No. 91, West College
WOODS MERTZ NICELY,	<i>Sunbury.</i>	No. 57, West College
RAYMOND FORD NICHOLS,	<i>Tamaqua.</i>	No. 48, West College
HELEN GRIFFIN OTT,	<i>Bridgeton, N. J.</i>	Women's College
ROBERT JOHN PARMENTER,	<i>Elmira, N. Y.</i>	No. 70, West College
HENDERSON POINTS,	<i>Bedford.</i>	No. 22, West College
HAROLD EVANS POWELL,	<i>Scranton.</i>	No. 65, West College

NAME.	RESIDENCE.	ROOM.
MARY ELLEN RACE,	<i>Oxford, N. J.</i>	South Third Street
WILLIAM DEAN READING,	<i>Franklin.</i>	No. 44, West College
FLORENCE ISABELLE REIMENSNYDER,	<i>Milton.</i>	Milton
WILLIAM STANLEY REITZ,	<i>Trevorton.</i>	No. 49, West College
JOHN WINTER RICE,	<i>Williamsport.</i>	No. 52, West College
EDWARD JOHN RICHARDS,	<i>Homestead.</i>	No. 32½, East Wing
FRANK RAYMOND RICHARDS,	<i>Crafton.</i>	No. 38, East College
KARL WHITMAN RIPPEL,	<i>Milton.</i>	Milton
ISABELLE HOWIE ROCKWELL,	<i>Canton.</i>	Women's College
MARY FLORENCE ROLLINS,	<i>Altoona.</i>	Women's College
DAVID MEYER SATZ,	<i>Newark, N. J.</i>	No. 59, West College
CLIFFORD R. SCHENCK,	<i>Great Neck, L. I., N. Y.</i>	No. 23, West College
FRED OSCAR SCHNURE,	<i>Milton.</i>	Milton
JOHN GRANVILLE SCOUTON,	<i>Dushore.</i>	No. 24, West College
MARIAN ESTHER SHIVERS,	<i>Haddonfield, N. J.</i>	Women's College
CLINTON FRANCES SNYDER,	<i>Minersville.</i>	No. 41, West College
DONALD AMOS SPROUT,	<i>Picture Rocks.</i>	No. 87, East College
FRANK WILLIAM JOHN STAFFORD,	<i>Detroit, Mich.</i>	No. 85, West College
HARRY SYLVESTER STAHLER,	<i>Mauch Chunk.</i>	No. 37, East College
RAYMOND BEAUMONT STAPLETON,	<i>Mifflinburg.</i>	Mifflinburg
ARTHUR RAYMOND THOMAS,	<i>Lewisburg.</i>	Market Street

NAME.	RESIDENCE.	ROOM.
RALPH MCGUIRE TYSON,	<i>Montgomery.</i>	No. 79, East College
ALFRED SMITH VAN OSTEN,	<i>Philadelphia.</i>	No. 115, East College
CLARENCE ALVA WAYCHOFF,	<i>Jefferson.</i>	South Fifth Street
HARRY BRUNGART WEAVER,	<i>Rebersburg.</i>	No. 15½, West Wing
ALVIE MCGREGOR WELCHONS,	<i>Falls Creek.</i>	No. 13, East Wing
STEPHEN KUHN WELLS,	<i>Bloomsburg.</i>	No. 33, West College
PAUL RAYMOND WENDT,	<i>Williamsport.</i>	No. 52, West College
NORMAN WILLMER WHITED,	<i>Hawthorne.</i>	No. 11, East Wing
EDNA ALICE WHITTAM,	<i>Chester.</i>	Women's College
CARROLL ZENAS WIGHT,	<i>Las Animas, Col.</i>	No. 19, East Wing
JOHN FRANCIS WINKELBLECH,	<i>Milton.</i>	Milton
FRANK BEACHAM WORRILOW,	<i>Chester.</i>	No. 9, East College
	Freshmen, 115.	

NON-MATRICULATES.

NAME.	RESIDENCE.	ROOM.
FREDERICK STEPHEN DANIELS,	<i>Chicago, Ill.</i>	No. 88, West College
RAE DREIFUSS,	<i>Milton.</i>	Milton
GARDNER WADE EARLE,	<i>Lewisburg.</i>	North Front Street
SPENCER G. EDMISTON,	<i>Philadelphia.</i>	No. 55, West College
RALPH H. EVERETT,	<i>Watsonstown.</i>	Watsonstown
FLOYD B. FOSTER,	<i>Dalton.</i>	No. 30, East Wing
FRANKLIN K. GEHMAN,	<i>Ephrata.</i>	No. 24, East Wing
WILLIAM THOMAS GOODWIN,	<i>Coatesville.</i>	No. 3, West Wing
GEORGE HIPPLE,	<i>West Chester.</i>	No. 35, East College
W. RAYMOND KERSTETTER,	<i>Shamokin.</i>	No. 20, East Wing
JOSEPH LOGAN, JR.,	<i>Milton.</i>	Milton
JOHN MCCULLOCH,	<i>Eleanora.</i>	No. 21, East College
WILGERRY LEWIS MCWRIGHT,	<i>Orangeburg, S. C.</i>	Brown Street
WILLIAM JOSEPH POTTS,	<i>Renovo.</i>	No. 40, West College
JESSE E. RILEY,	<i>Shinnstown, W. Va.</i>	No. 9, West Wing
HELEN G. STOUT,	<i>Milton.</i>	Milton
*JOSEPH R. GOLIGHTLY,	<i>Westmoor.</i>	No. 55, West College
*EARL POLLOCK,	<i>Mansfield, Ohio.</i>	No. 4, West College

NAME.	RESIDENCE.	ROOM.
*MILDRED E. SMITH,	<i>Youngsville.</i>	North Third Street
*CHARLES J. STECKER,	<i>Mansfield, Ohio.</i>	No. 4, West College

Non-matriculいたes, 20.

SUMMARY.

Graduate Students	117
The Senior Class	96
The Junior Class	77
The Sophomore Class	91
The Freshman Class	115
Non-Matriculいたes	20
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Total	516

THE ACADEMY

INSTRUCTORS.

JOHN HOWARD HARRIS, PH. D., LL. D.,
PRESIDENT OF THE UNIVERSITY.

WALTER SAMUEL WILCOX, SC. M., PRINCIPAL,
MATHEMATICS.

JOSEPH LINCOLN CHALLIS, A. M.,
LATIN.

CHARLES CARPENTER FRIES, A. B.,
ENGLISH.

HOMER BLAINE HEDGE, A. B.,
MODERN LANGUAGES AND SCIENCE.

WEAVER WEDDELL PANGBURN, A. B.,
LATIN AND HISTORY.

ISAAC NEWTON EARLE, A. B.,
GREEK.

JOSEPH MEIXELL WOLFE, A. M.,
REGISTRAR OF THE UNIVERSITY.

ACADEMY STUDENTS

FOURTH FORM.

CLASSICAL COURSE.

NAME.	RESIDENCE.	ROOM.
FREDERICK HARRISON FAHRINGER,	<i>Pottsville.</i>	No. 2, East Hall
HAROLD DUNLAP NICHOLLS,	<i>Newton, N. J.</i>	No. 6, Main Hall

LATIN SCIENTIFIC COURSE.

FRANCIS THEODORE BROWN,	<i>Lewisburg.</i>	Lewisburg
CLAIR GEPHART GROOVER,	<i>Lewisburg.</i>	Lewisburg
GEORGE ALLISON IRLAND,	<i>Lewisburg.</i>	East Market Street
DWITE HAYDEN SCHAFFNER,	<i>Falls Creek.</i>	No. 18, East Hall

SCIENTIFIC COURSE.

ESKEL VALENTINE ANDERSON,	<i>Monessen.</i>	No. 22, East Hall
JACOB HENRY AUSLANDER,	<i>Uniontown.</i>	No. 14, East Hall
HARRY CARSON BIEHL,	<i>Lewisburg.</i>	West Market Street
CHARLES WARREN BROWN,	<i>Lewisburg, R. F. D. 1.</i>	Lewisburg
BYRON HENRY CLARK,	<i>Canton.</i>	No. 10, East Hall
HARRY PAUL CLAYTON,	<i>Wheeling, W. Va.</i>	No. 14, East Hall
WILLIAM REED DAVIS,	<i>Atglen.</i>	No. 6, Main Hall

NAME.	RESIDENCE.	ROOM.
RALPH WENDELL FRYE,	<i>Monessen.</i>	No. 22, East Hall
ANDREW CLINTON HAUSE,	<i>Tamaqua.</i>	No. 20, East Hall
GILBERT JUDSON MEREDITH, JR.,	<i>Felton, Del.</i>	No. 11, East Hall
WILLIAM SECHLER NOLL,	<i>Lewisburg.</i>	South Fourth Street
FRANK RICHARD RICE,	<i>Jenningsstown, W. Va.</i>	No. 8, East Hall
JOHN DAVIS TREVASKIS,	<i>Weatherly.</i>	No. 18, East Hall
ERNEST LEROY WAGNER,	<i>Lewisburg.</i>	South Seventh Street
JOHN MOORE WINGERT,	<i>Lewisburg, R. F. D. 1.</i>	Lewisburg

THIRD FORM.

CLASSICAL COURSE.

EDWARD OLIVER CLARK,	<i>Bayonne, N. J.</i>	No. 9, Main Hall
C. EARL GOLD,	<i>McEwensville.</i>	No. 9, East Hall
NORMAN RAE HILL,	<i>Newberry.</i>	No. 2, East Hall
MILLER ALANSON JOHNSON,	<i>Lewisburg.</i>	University Avenue
ALFRED TENNYSON STEININGER,	<i>Lewisburg.</i>	West Market Street

SCIENTIFIC COURSE.

JAMES ANDREW BRODE,	<i>Tamaqua.</i>	No. 20, East Hall
CONOVER HERBERT BURLEW,	<i>Freneau, N. J.</i>	No. 8, East Hall
EDGAR CARLTON CAMPBELL,	<i>Shunk.</i>	No. 21, East Hall
JOHN MINER DREW,	<i>Scranton.</i>	No. 10, Main Hall

NAME.	RESIDENCE.	ROOM.
CHARLES MICHAEL FULMER,	<i>Tamaqua.</i>	No. 19, East Hall
PAUL MARTIN GEISE,	<i>Sunbury.</i>	No. 10, Main Hall
WILLIAM FREEMAN GREGG,	<i>Sunbury.</i>	No. 10, East Hall
PAUL CHARLES HARTER,	<i>Loganton.</i>	No. 23, East Hall
CHARLES CLEMENT KEPPLE,	<i>New Alexandria.</i>	No. 7, Main Hall
SCHANCK HERBERT LAMBERTSON,	<i>Freehold, N. J.</i>	No. 13, East Hall
JAMES KERCHNER LOEWEN,	<i>Tamaqua.</i>	No. 17, East Hall
CLARENCE AUGUSTINE MILLER,	<i>Franklin.</i>	No. 12, Main Hall
GEORGE FUNSTON MILLER,	<i>Lewisburg.</i>	South Second Street
JAMES KANE PETITTE,	<i>New York, N. Y.</i>	No. 5, Main Hall
HENRY CHARLES WOLFE,	<i>Lewisburg.</i>	George Street
RAYMOND LEE YOUNG,	<i>Lewisburg.</i>	South Fourth Street

SECOND FORM.

GEORGE CRASHAW BEDEA,	<i>Shenandoah.</i>	No. 12, Main Hall
DONALD ROSS DUNKLE,	<i>Lewisburg.</i>	East Market Street
CALVIN EMERY DUNKEL,	<i>Lewisburg, R. F. D. 3.</i>	Lewisburg
RICHARD KERSHNER LOEWEN,	<i>Tamaqua.</i>	No. 17, East Hall
CHARLES ALFORD MOYER,	<i>Tamaqua.</i>	No. 19, East Hall
WILLIAM EMANUEL PERSING,	<i>Allenwood.</i>	Allenwood
DAYTON LEO RANCK,	<i>New Columbia.</i>	New Columbia

NAME.	RESIDENCE.	ROOM.
CHARLES HENRY SHARPE,	<i>Newburgh, N. Y.</i>	No. 6, Main Hall
HAROLD TYSON SHARPE,	<i>Philadelphia.</i>	No. 7, Main Hall
JOSEPH KENNARD WEDDELL,	<i>Lewisburg.</i>	South Sixth Street

FIRST FORM.

MARION MARMADUKE EARLE,	<i>Lewisburg.</i>	North Front Street
STANLEY NEWTON HARRIS,	<i>Lewisburg.</i>	University Avenue
EARL REICHELDERFER,	<i>Tamaqua.</i>	No. 9, Main Hall
JULIUS FREDERICK SEEBACH,	<i>Lewisburg.</i>	South Third Street

STUDENTS PURSUING SELECT STUDIES.

DAVID NATHANIEL BOSWELL,	<i>Washington.</i>	Brown Street
MILFORD ROLAND CULP,	<i>Sunbury.</i>	Sunbury
EMLÉN QUARLL DOAN,	<i>Berwick.</i>	No. 12, Main Hall
JOHN FAZEKAS,	<i>Harrisburg.</i>	No. 14, West College
MAX W. HORAM,	<i>Lewisburg.</i>	North Second Street
JOHN GRIER LEWIS,	<i>Honeybrook.</i>	No. 11, East Hall
MARPLE MEVAY LEWIS,	<i>Collingswood, N. J.</i>	No. 18, West College
EDWARD MALDONADO,	<i>Meredia Yucatan, Mexico.</i>	South Sixth Street
HAROLD STANLEY MYATT,	<i>Philadelphia.</i>	No. 5, Main Hall
MARCUS OPPENHEIMER,	<i>Bedford.</i>	No. 9, East Hall
RUSSELL PHILIP RAY,	<i>Swissvale.</i>	Market Street

NAME.	RESIDENCE.	ROOM.
SAMUEL LeROY SEEMAN,	<i>Oakmont.</i>	No. 13, East Hall
EARNEST JOY SHEATS,	<i>Millmont.</i>	No. 21, East Hall
RUSSELL CONWELL SHIPMAN,	<i>Sunbury.</i>	No. 8, Main Hall
GUY MALVERN SMITH,	<i>Sunbury.</i>	Sunbury
PERCY BROWN SMITH,	<i>Greensburg.</i>	No. 15, East Hall
HIRAM MICHAEL WOLFE,	<i>Lewisburg, R. F. D. 1.</i>	Lewisburg

SUMMARY.

The Fourth Form, Classical.....	2
Latin Scientific.....	4
Scientific.....	15
	—21
The Third Form, Classical.....	5
Scientific.....	16
	—21
The Second Form.....	10
The First Form.....	4
Students Pursuing Select Studies.....	17
	—31
Total in the Academy.....	73

Students enrolled in other departments of the University who receive instruction in the Academy classes:

Greek of the Fourth Form.....	4
Third Form.....	5
Latin.....	2
Mathematics.....	1
	—12
Total receiving instruction in Academy classes,	85

COURSES OF STUDY

The Academy is designed to fit pupils for College, for Teaching, or for Business. It offers three Courses of Study.

I. The Classical Course extends through four years and is arranged to meet the requirements for admission to College. The Study of Latin begins with the First Form and continues for four years and two terms. The Study of Greek begins with the Third Form and continues for two years and one term. Notwithstanding the time given to these branches of study, fully one half of the entire course is devoted to English, Historical, Mathematical, and Scientific subjects.

II. The Latin Scientific Course extends through four years and furnishes adequate preparation for either division of the Philosophical Course in College. The First and Second Forms of the Classical and Scientific Courses are identical. In the Third and Fourth Forms, the student preparing for the Latin Division substitutes Historical and Scientific subjects for the Greek of the Classical Course; while the student preparing for the Greek division substitutes the Greek of the Third and Fourth Forms for the Latin and includes Historical and Scientific subjects.

III. The Scientific Course extends through four years and prepares for the Courses in General Science, in Biology, in Chemistry, and in Civil, Mechanical and Electrical Engineering in College. For the Vergil and the Cicero of the Latin Scientific Course, it substitutes one term of Advanced English, one term of Chemistry, and two years of German.

Students who are able to accomplish more work in the allotted time than is required by the Course may pursue honor work in the Classics by reading, under the instructor's direction, Cæsar's Civil War, Cicero's Letters, or Vergil's Eclogues, and Books IV, V, VI of the Iliad, or the Cyropædia.

Students will be admitted to the Form for which they are prepared.

Students who do not intend to enter College, but who desire a comprehensive academic training, will find the Scientific or the Latin Scientific Course well adapted to prepare them for teaching or for business.

Special classes in History and Literature are maintained to meet adequately the requirements of applicants for examination and registration as students at law, under the rules adopted by the Supreme Court of Pennsylvania.

CURRICULA

Arabic numerals indicate the number of recitations a week
in each subject.

I. THE CLASSICAL COURSE.

FIRST FORM.

I. TERM—Algebra, 5, Latin, 5,	U. S. History, 5, English, 5.
II. TERM—Algebra, 5, Latin, 5,	English, 5, U. S. History, 5.
III. TERM—Geometry, 5, Latin, 5,	U. S. History, 5, English, 5.

SECOND FORM.

I. TERM—Higher Arithmetic, 5, Latin, 5,	Ancient History, 5, Rhetoric, 5.
II. TERM— { Bookkeeping, Commercial Arithmetic, 5, Latin, 5,	Ancient History, 5, Rhetoric, 5.
III. TERM—Algebra, 5, Cæsar, 5,	Ancient History, 5, Literature, 5.

THIRD FORM.

I. TERM—Algebra, 5, Cæsar, 5,	Greek, 5, Elocution, 5.
II. TERM—Algebra, 5, Cæsar, 5,	Greek, 5, Literature, 5.
III. TERM—Algebra, 5, Cicero, 5,	Anabasis, 5, Literature, 5.

FOURTH FORM.

- | | |
|-------------------------------------|----------------------------|
| I. TERM—Geometry, 5,
Vergil, 5, | Cicero, 5,
Anabasis, 5. |
| II. TERM—Geometry, 5,
Vergil, 5, | { Ovid, } 5,
Cicero, } |
| | Iliad, 5. |
| III. TERM—Physics, 5,
Vergil, 5, | Iliad, 5,
Anabasis, 5. |

II. THE LATIN SCIENTIFIC COURSE.**FIRST FORM.**

- | | |
|-------------------------------------|----------------------------|
| I. TERM—Algebra, 5,
Latin, 5, | History, 5,
English, 5. |
| II. TERM—Algebra, 5,
Latin, 5, | English, 5,
Drawing, 5. |
| III. TERM—Geometry, 5,
Latin, 5, | History, 5,
English, 5. |

SECOND FORM.

- | | |
|--|---------------------------------------|
| I. TERM—Higher Arithmetic, 5,
Latin, 5, | Ancient History, 5,
Rhetoric, 5. |
| II. TERM— | |
| { Bookkeeping,
Commercial Arithmetic, 5,
Latin, 5, | Ancient History, 5,
Rhetoric, 5. |
| III. TERM—Algebra, 5,
Cæsar, 5, | Literature, 5,
Ancient History, 5. |

THIRD FORM.

- | | |
|---|---------------|
| I. TERM—Algebra, 5,
Cæsar, 5, | Elocution, 5, |
| <i>German, 5, or History of England, 5.</i> | |

II. TERM—Algebra, 5, Literature, 5,
 Cæsar, 5,
 German, 5, or Civics, 5.

III. TERM—Algebra, 5, Literature, 5,
 Cicero, 5,
 German, 5, or Botany, 5.

FOURTH FORM.

I. TERM—Geometry, 5, *German, 5, or French, 5,*
 Vergil, 5, *or Physiology, 5,*
 Cicero, 5, *or Chemistry, 5.*

II. TERM—Geometry, 5, { Cicero, } 5,
 Vergil, 5, { Ovid, }
 German, 5, or Astronomy, 5, or French, 5.

III. TERM—Physics, 5, *German, 5,*
 Vergil, 5, *or French, 5,*
 Solid Geometry, 5, *or Geology, 5.*

III. THE SCIENTIFIC COURSE.

FIRST FORM.

I. TERM—Algebra, 5, History, 5,
 Latin, 5, English, 5.

II. TERM—Algebra, 5, English, 5,
 Latin, 5, Drawing, 5.

III. TERM—Geometry, 5, History, 5,
 Latin, 5, English, 5,

SECOND FORM.

I. TERM—Higher Arithmetic, 5, Ancient History, 5,
 Latin, 5, Rhetoric, 5.

II. TERM—
 { Bookkeeping, Ancient History, 5,
 { Commercial Arithmetic, 5, Rhetoric, 5.
 Latin, 5,

III. TERM—Algebra, 5,
Cæsar, 5,

Literature, 5,
Ancient History, 5.

THIRD FORM.

I. TERM—Algebra, 5,
Cæsar, 5,

German, 5,
Elocution, 5.

II. TERM—Algebra, 5,
Cæsar, 5,

German, 5,
Literature, 5.

III. TERM—Algebra, 5,
Botany, 5,

German, 5,
Literature, 5.

FOURTH FORM.

I. TERM—Geometry, 5,
Physiology, 5,
or *Chemistry*, 5,

History of England, 5,
German, 5,
or *French*, 5.

II. TERM—Geometry, 5,
Astronomy, 5,

Civics, 5,
German, 5, or *French*, 5.

III. TERM—Physics, 5,
Geology, 5,

German, 5, or *French*, 5,
Solid Geometry, 5.

METHODS OF INSTRUCTION

The Preparatory Curriculum naturally falls into eight principal lines of study, viz.: English, French, German, Latin, Greek, History, Mathematics, and Natural Science. These combine, in due proportion, the cultural, the disciplinary, and the practical elements of intermediate education. The two great divisions of modern study, the Classical and the Scientific, are accorded adequate and appropriate preparation. The subjects, facilities, and methods of the various departments are explained below.

I. THE ENGLISH LANGUAGE.

A thorough grounding in the principles of English Grammar is indispensable to the student's progress in the subsequent language studies. The continuous application of this knowledge in Composition, and the constant comparison with the forms and idioms of the Ancient Languages, prepare the way for the study of elementary Rhetoric, and the appreciative reading of English and American Literature. This work is done in the First Form.

In the Second Form a review in the principles of English Grammar is given, and a practical application of the same, together with rhetorical structure in paragraph writing and composition.

In the Third Form the first term is devoted to the study of Elocution, and the remaining two terms take up the study of Literature. The reading and study of the masterpieces of English and American Literature are maintained by means of daily recitations. The work required is identical with the "Scheme of Uniform Entrance Examinations in English Language and Literature," adopted by the "Association of Colleges and Preparatory Schools of the Middle States and Maryland." It comprises (a) careful reading of representative works of certain authors, as literature; (b) thorough study as to "subject-matter, form and structure" of other selections.

II. THE LATIN LANGUAGE.

The Course includes four and two thirds years of Latin, embracing four books of Cæsar, six orations of Cicero, six books of Vergil, and twelve hundred lines of Ovid, besides a complete Course in Grammar and Composition.

Careful drill is given in the declensions and conjugations, in the use of the moods and the sequence of tenses, in the ready reading of the Latin text, in sight reading and in accurate translations into idiomatic English. Attention is given to the important personal, historical, and political elements in the writings of Cæsar and Cicero. In Vergil, the student is introduced to the poetry, legend, religion, and art of Rome. He is taught to investigate the allegorical, archæological, and mythical allusions of the *Æneid*, and to appreciate it as the mirror of the life of the Empire. Latin prosody is taught first from the text, and then from the grammar.

III. THE GREEK LANGUAGE.

The first two terms of the Third Form are spent in a thorough study of White's First Greek Book. In the third term Xenophon's *Anabasis* is read, and special attention is given to acquiring a vocabulary and to the forms and syntax of nouns, pronouns, and adjectives. In the first half of the Fourth Form the reading of Xenophon is continued. During the last half year Homer's *Iliad* is read, and the difference between the Homeric and Attic Forms is noted. Throughout the course, Prose Composition is frequently required for the purpose of acquiring a vocabulary and a knowledge of syntax. The course includes four books of the *Anabasis*, four books of the *Iliad*, besides the Grammar and Prose Composition.

IV. THE GERMAN LANGUAGE.

One year's study of German is required of members of the Third and Fourth Forms of the Scientific Course. The same work may be elected by the members of the corresponding form of the Latin Scientific Course instead of the science subjects of that course. In the study of German, the aim is a thorough acquaintance with declensions and conjugations; facility of pronunciation; quick recognition of words both by the eye and the ear; as extensive a vocabulary as the time will allow; and by constant practice the laying of a foundation for reading, writing, and speaking the language.

V. HISTORY.

The course in History includes a survey of the History of the United States, of England, of Greece, and of Rome. The aim is to acquaint the student with the life, the genius, the institutions, and

the achievements of the respective peoples, and their part in the wider history of mankind.

Additional courses are offered in Ancient, Mediæval, and Modern History, and extra courses in the historical readings required of applicants for examination and registration as students at law by the Supreme Court of Pennsylvania.

Civil Government is taught as a preparation for intelligent citizenship. The origin and growth of our institutions, the functions of the various departments of the National, State, and local governments, the political history of the people, the interpretation and construction of the Constitution, are presented and discussed.

VI. MATHEMATICS.

Arithmetic. To students who are fitting themselves for business, a course is given in practical business Arithmetic, involving all the ordinary problems and practices in the business world. To those who are preparing for college or for teaching, instruction is given in the theory and science of Arithmetic. Pupils are expected to master the principles and then to formulate their own rules.

Algebra. The Third Form course extends through one year, and includes a knowledge of the fundamental principles, Factoring, Divisors, and Multiples, Fractions, Equations, Involution, Evolution, Theory of Exponents, Radicals, and Quadratic Equations. Daily blackboard work serves to apply the principles taught. The student is required both to know the methods of the solution of problems and also to explain the operation to the class.

The First Form takes up Algebra for the first two terms. The work is intended to give the pupils a knowledge of algebraic principles and to assist them in their Arithmetic. The third term is devoted to Concrete Geometry and Mechanical Drawing.

Plane and Solid Geometry. The instruction consists in daily recitations for three terms on the Theorems and Problems given in the text-book, with original demonstrations of the same propositions by the students from hints and figures given in the classroom. Besides this, considerable attention is given to the solution of original Propositions, and the application of principles thus learned to the solution of numerical problems.

Bookkeeping. A practical introduction to the science of accounts is secured in the term devoted to mastering the principles of Double Entry Bookkeeping. Careful attention is given to business forms, to the usages of Banks, and to the elements

of Commercial Law. The subject may be pursued in its more extended and intricate application, as an elective, by properly qualified students.

VII. SCIENCE.

Botany is taught by text-books, field exercise, plant analysis, and weekly lectures. A brief outline is first obtained of plant structure, physiology, growth and reproduction. The subject is then reviewed by daily drill in analyzing, recording, classifying, and preserving specimens. The recorded analysis of fifty plants is required. Lectures explaining special forms of vegetable growth, the flora of this country, the cultivation, uses, and history of plants complete the work.

Physiology. Every effort is made to impart clear ideas of the structure, parts and functions of the human body. Special attention is given to the chemistry of foods, the laws of health, the effects of stimulants and narcotics. Suggestions are constantly made as to poisons and their antidotes, the care of the sick, disinfection and sanitation, and accidents and emergencies. Charts, manikin, and preparations are used in class.

Physics. The student is grounded in the elements of mechanics and physics. The apparatus of the College Laboratory is available for use. The historical beginnings of each subject, and subsequent development, are sketched in brief lectures. No pains are spared to familiarize the pupil with the laws of these sciences, by instruction, experiments, review, and repeated examination. The truth of principles is proved, except where the demonstration involves mathematics of the higher course in College.

Astronomy. Descriptive Astronomy discusses the earth's relations to the solar system, the masses, motions, and orbits of each member of it; the causes and consequences of the motions of the earth; general boundaries of the constellations of the Zodiac and northern heavens; the theories of comets, meteors, and nebulae. Charts, star maps, globes, and other apparatus are used, and the student is afforded privileges of observation in the College Observatory.

Geology. The student masters the elements of lithological, structural, dynamic, and historical Geology. Specimens of various rocks and minerals are handled in class; their composition, characteristics, and place in nature are explained; the structure of the earth in its present form is studied; the history of its evolu-

tion, the age and characteristic of its strata, the chief geological features of each continent, and the forces at work, and that have worked, to produce changes are considered.

VIII. ORATORY.

Class Exercises. Members of the Fourth Form prepare and deliver one original oration each term. All other students have regular exercises in Composition and Declamation throughout the year. Public exercises are held before the faculty and students of the Academy. Visitors are cordially invited to these exercises.

In addition to the private rehearsals for the work above indicated, students in the Third Form receive daily instruction in elocution during the fall term. The course includes careful drill in the Elementary sounds, in Articulation, and in expression; in Analytical Reading, including the Bible and Hymns; and the reading of Shakspeare.

IX. SPECIAL BRANCHES.

Bible Study. The study of the Bible is pursued as a regular weekly recitation throughout the First, Second, and Third Forms, in all Courses of study. A scheme of study is arranged at the beginning of each year. It is intended that the successive schemes for the various years of the course will cover the Life of Christ, the historical portions of the Old Testament foreshadowing the Christ, and the history of the Apostolic Church.

The Study of Music may be pursued by Academic students in the School of Music.

Drawing. All students of the Academy may receive throughout the year weekly lessons in Free-hand Drawing and Penmanship without extra charge. Special individual instruction in Drawing in the Art Studio is afforded at twenty-four dollars per annum.

X. HEALTH AND PHYSICAL CULTURE.

The Tustin Gymnasium affords opportunity for physical exercise. The Directors of the Gymnasium give regular class exercises to the students of the Academy. Attendance upon physical training in the Gymnasium is obligatory during the Winter Term.

The Athletic Association of the Academy has been formed to encourage and regulate athletic sports. The Association is allowed to arrange match games with other similar bodies by first securing the consent of the Principal.

PUBLIC EXHIBITIONS.

THIRD FORM.

The Public Exhibition in Declamation by the Third Form will take place on Saturday evening, April 15th, 1911, in Bucknell Hall.

FOURTH FORM.

The closing exercises of the Academy will be the Public Exhibition in Oratory of the Fourth Form, on June 17th, 1911.

Diplomas and Certificates will be conferred Tuesday, June 20, 1911.

GENERAL INFORMATION

ADVANTAGES.

To the student seeking preparation for College, the Academy offers unusual inducements. Its proximity to the College secures to him an atmosphere of study, acquaintance with the guides and companions of his future course, and the benefit of numerous literary exercises to be found only in College towns. He has access to the College Library and Reading Room. The Academy is designed to fit pupils thoroughly for College and Technical Schools, and to lay broad and solid foundations for all subsequent scholarly culture and for the successful conduct of everyday affairs.

GOVERNMENT.

Students are encouraged to regard self-government as the only true government. It will be the constant endeavor to secure uprightness of character, gentlemanly deportment, and diligent application to work, by kind treatment, and high standards in conduct and study.

I. ADMINISTRATION.

1. The general control of the Academy is vested in the President of the University.

2. The government of the Academy, subject to such control, rests with the Principal of the Academy.

3. The government of each Hall is vested in the Instructor in charge, who resides in the Hall and enforces regulations for the Hours of Study, Academy Property, Hygienic Precautions, and General Deportment, and such other prudential regulations as may be ordered by the joint concurrence of the President of the University and the Principal of the Academy.

4. Each instructor shall have charge of his classes with reference to attendance upon recitations. He shall report to the Principal cases of non-attendance, and inexcusable failure on the part of students to prepare regular lessons or special work assigned.

II. VIOLATION OF RULES.

1. Any officer of the Institution becoming cognizant of any violation of the regulations by any pupil shall report the same to the Principal of the Academy, who shall make a record of the fact in a book provided for the purpose.

2. Every violation of the laws and prudential regulations of the Academy will subject the offender to a penalty of demerits, graded according to the flagrancy and frequency of the offense.

3. When the sum of a pupil's demerits equals ten it shall be the Principal's duty to notify the parent or guardian of the offender, specifying the offense; for every additional ten demerits like notification shall be made.

4. Additional disciplinary penalties in the form of reprimand, "campus," suspension, dismissal, or expulsion, according to the necessities of the case, will follow repeated violations.

BUILDINGS AND ROOMS.

The Academy Buildings are described in detail in the introductory pages of the Catalogue.

The Main Building contains, besides its accommodations for other school and boarding purposes, rooms for students. The rooms are designed to accommodate two students each, and are twenty feet by twelve feet, and fourteen feet high; furnished with new folding beds, washstands, chairs, mirror and table.

The East Hall contains combined study and sleeping rooms, each designed for two students. These rooms are fifteen feet by twelve feet, with high ceilings, and contains two commodious closets and two single wire mattress beds with all necessary furniture.

ARTICLES REQUIRED.

Each student should be provided with an umbrella, overshoes, table napkins, towels, soap, and other articles usually required for personal comfort. All articles for the laundry should be marked with the owner's name.

BOARDING.

All students from a distance will occupy rooms and will board in the Academy, except for reasons jointly satisfactory to the President of the University and the Principal of the Academy.

The Principal and his family, the Instructors, and the Matron live in the building, take their meals with the boarders, and strive in all possible ways to secure the welfare and happiness of the students. The Instructors occupy rooms adjacent to the students' apartments. The appointments of the Dining Room, the character of the table supplies, the household service in general, are designed to furnish the comforts of a first-class boarding house. So far as may be warranted by the deportment of the students, there will be absent from the home life of the school all needless uniformity and irksome limitations, which disregard the reasonable individual preference of pupils.

The Academy gives to furnished rooms daily and complete attention, provides and washes all bedding and bed clothing, and supplies and cares for all lights.

Engagements for board and rooms are expected to continue without change to the end of the school year for which they are made.

APPLIANCES.

The Academy is in possession of excellent apparatus for instruction. A select Reference Library, containing Encyclopedias, Lexicons, Dictionaries, Atlases, and various other helps, is accessible to students at all hours. The Classical Recitation Rooms are provided with Kiepert's Wall Maps of Ancient Geography, and with Reinhard's Album of Ancient Antiquities, mounted. Metric apparatus, Maps and Globes render assistance in other directions.

The apparatus of the College also is accessible to the classes for purposes of experiment and illustration.

The College Library, numbering thirty thousand volumes, is available for all students.

SCHOOLROOM.

In order to insure favorable conditions of study, the Academy maintains a commodious and well-appointed schoolroom. The school life centers in this room. Here, except when engaged in recitations, day students prepare their work, unless excused for a part of the time, for good cause; here, also, all the younger students of the lower forms prepare for their recitations. Advanced students and those of maturer years, who have acquired habits of independent study, are granted the privilege of preparing part of their work in their rooms, provided that they maintain high scholarship and excellent deportment.

HOURS.

The time devoted to study and recitation amounts to nine hours every week-day, except Saturday, when it is only two hours. This time should be sacred to its purpose. Parents of day pupils are requested to coöperate with the school in securing attention to evening study hours, and to avoid furnishing occasions or granting excuses for absence.

Students from a distance should be in Lewisburg on the day preceding the opening of each term, and no student should leave until the term has closed. Punctuality in attendance is essential to success in school work.

For terms and vacations, see the Calendar of the University.

STANDING AND PROMOTIONS.

The weekly averages of marks for recitations are recorded, and also failures in conduct and attendance. The scale for such markings ranges from 10, or perfect, to 0, or inexcusable failure. Unexcused absences count as zero.

Monthly and term examinations are held in the studies thus far completed, and term reports of the average in scholarship, attendance, and conduct of each student are sent to parents or guardians by the Principal.

No student is promoted to the next higher class whose grade in any study is less than 7.

Students who complete the Preparatory Courses of Study are admitted to standing in corresponding divisions of the Freshman Class in the College, upon the Principal's certificate, without examination.

All students who complete in a satisfactory manner any of the Courses of Study, and who have sustained irreproachable character during their school residence, shall be entitled to the diploma of the Academy.

Students attaining an average standing of 9 are encouraged to take work additional to the Regular Courses of Study.

PRIZES.

THE HARRY S. HOPPER PRIZE

Mr. Harry S. Hopper, of Philadelphia, Chairman of the Board of Trustees, offers an annual prize for excellence in Composition. This prize for 1910 was awarded to Walter William Harris.

THE REV. DAVID PORTER LEAS PRIZE.

Rev. David P. Leas, of Philadelphia, Treasurer of Bucknell University, offers an annual prize to that member of the Third Form who shall excel in the Annual Exhibition of the Third Form in Declamation.

This prize for 1910 was awarded to Frederick H. Fahringer.

THE PRINCIPAL'S PRIZE.

Principal Wilcox offers an annual prize to that member of the Fourth Form who shall pronounce the best oration at the Academic Graduating Exhibition.

This prize for 1910 was awarded to Arthur R. Thomas.

LITERARY SOCIETY.

This is an organization of students for mutual improvement in literary and oratorical exercises. It has a large and convenient hall in the Main Academy Building, where meetings are held on Friday evenings.

RELIGIOUS SERVICES.

The duties of each day are opened with devotional exercises, which all students are required to attend. Devotional exercises are also held every evening, just before the evening study hour. All academic students residing on the University campus are required to attend these exercises.

Regular attendance at Sunday school and upon public worship at some church on Sunday morning, is required; also upon services on Thanksgiving Day, and the Day of Prayer for Colleges. Attendance upon Christian Endeavor or other like Young People's Society, and the mid-week prayer-meetings, while voluntary, is strongly urged upon students.

Parents or guardians are requested to indicate to the Principal the church which they desire their sons or wards to attend.

The Academy students maintain a branch of the Young Men's Christian Association, which holds a weekly prayer-meeting on Tuesday evenings.

EXPENSES OF ACADEMY STUDENTS

	<i>Per Annum.</i>
Tuition, Board, Furnished Room, Heat, Light, Care, Washing and Incidentals.....	\$280.00
Tuition and Incidentals to day pupils.....	85.00

A student engaging a room is required to make a deposit of ten dollars. This amount is credited upon the regular term bills. Should a student for good reason be unable to return, the deposit will be refunded, provided notice is sent to the Register not less than four weeks before the opening of the term for which the room is engaged.

All charges are payable to the Registrar of the University in advance, at the beginning of each term.

No student is entitled to his place in his class until he has made settlement for the term bills.

An extra charge will be made for washing more than twelve pieces per week.

Students who remain in the Academy during the holiday or spring vacation will be charged at the rate of \$5.00 per week. Table boarders will be charged the regulate rate, \$3.50 per week.

Free scholarships covering tuition are provided in all the departments of the University for the children of Ministers of the Gospel *in actual service*. Tuition is rated at \$36 a year.

The expenses for Music and Printing for Exhibition and Anniversary occasions are paid by the classes for which such expenses are incurred.

For information respecting the Academy, address the President of the University, or the Principal, Walter S. Wilcox, Sc. M.

THE INSTITUTE

INSTRUCTORS AND OTHER OFFICERS.

JOHN HOWARD HARRIS, PH. D., LL. D.,
PRESIDENT OF THE UNIVERSITY.

THOMAS ALPHEUS EDWARDS, A. M.,
DEAN OF THE DEPARTMENT FOR WOMEN,
AND INSTRUCTOR IN PSYCHOLOGY AND ETHICS.

EMMA LOUISE BUSH, A. B., PRECEPTRESS,
TEACHER OF GERMAN.

MARGARET ELLEN KALP, A. B.,
TEACHER OF ENGLISH AND HISTORY.

MARY GEORGINA STANTON, PH. B.,
TEACHER OF LATIN AND ENGLISH.

MARY STONER GRETZINGER,
TEACHER OF ENGLISH.

EDITH SCHILLINGER,
TEACHER OF ELOCUTION AND GYMNASTICS.

PAUL GEORGE STOLZ, B. S.,
ASSISTANT DIRECTOR OF THE SCHOOL OF MUSIC.

MARY ELIZABETH BOYNTON,
TEACHER OF INSTRUMENTAL MUSIC.

CHARLOTTE S. ARMSTRONG,
TEACHER OF INSTRUMENTAL MUSIC.

LYDIA A. BERKLEY,
TEACHER OF INSTRUMENTAL MUSIC.

BESSIE SUTHERLAND RICE, B. S.,
TEACHER OF VOCAL MUSIC.

GEORGINA K. SCOTT,
TEACHER OF ART.

ISAAC NEWTON EARLE, A. B.,
TEACHER OF MATHEMATICS AND GREEK.

HOMER BLAINE HEDGE, A. B.,
TEACHER OF SCIENCE.

JOSEPH MEIXELL WOLFE, A. M.,
REGISTRAR.

DIRECTORY OF THE ALUMNÆ

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Corresponding Secretary and Treasurer, MRS. DEWEY A. COBB,
3227 Race Street, Philadelphia.

The Dean of the Department for Women will esteem it a favor if any graduate who changes her residence will give notice of her new address. He will also be grateful for any information that will assist in making the directory of the graduates and former students complete.

GRADUATES, CLASS OF 1910.

NAME.

RESIDENCE.

HELEN KING BARTOL,	Lewisburg
LOIS MAY BROWN,	Lewisburg
HANNAH BARTON BUBB,	Lewisburg
ANNA KALER DREISBACH,	Lewisburg
ELLEN WOLFE FOCHT,	Lewisburg
MARIA AGNES SPYKER,	Lewisburg

THE SENIOR CLASS.

NAME.

RESIDENCE.

ROOM.

HELEN MAY BROWN,		Lewisburg
	<i>Lewisburg.</i>	
MIRIAM RUTH HOFFA,		South Fifth Street
	<i>Lewisburg.</i>	
MARY ANNA KUNKEL,		Lewisburg
	<i>Lewisburg.</i>	
RUTH BARBARA MOHN,		South Third Street
	<i>Lewisburg.</i>	
MARY ETHEL NOLL,		North Water Street
	<i>Lewisburg.</i>	
MARY EDNA STAROOK,		Lewisburg
	<i>Lewisburg.</i>	
KATHERINE STEIN,		North Second Street
	<i>Lewisburg.</i>	
DOROTHY WOLFE,		St. George Street
	<i>Lewisburg.</i>	
BERTHA JEANETTE YARGER,		Lewisburg
	<i>Lewisburg.</i>	

THE FOURTH YEAR CLASS.

MARY MORRIS CLAYTON,		South Fourth Street
	<i>Lewisburg.</i>	
NELLIE M. FOLLMER,		North Fifth Street
	<i>Lewisburg.</i>	
MARGARET CHRISTINE GRETZINGER,		South Sixth Street
	<i>Lewisburg.</i>	
MARGARET FAYE HARTER,		Women's College
	<i>Loganton.</i>	

NAME.	RESIDENCE.	ROOM.
ELIZABETH LOUDON HEINSLING,	<i>Altoona.</i>	Women's College
BLANCHE ELIZABETH HENDERSON,	<i>Montgomery.</i>	Women's College
MARGARET MCCLURE,	<i>Lewisburg.</i>	University Avenue
ELEANOR EMMA PROSS,	<i>Lewisburg.</i>	Market Street
RUTH ROYAL,	<i>Camden, N. J.</i>	Women's College
ISABELLE BOWMAN WOLFE,	<i>Lewisburg.</i>	North Third Street

THE THIRD YEAR CLASS.

MARY BELLE BROWN,	<i>Lewisburg.</i>	Lewisburg
EVA ELIZABETH BROWN,	<i>Lewisburg.</i>	Lewisburg
DARLE FAYE DAVIS,	<i>Allenwood.</i>	Allenwood
LENA GARVER FORGY,	<i>McVeytown.</i>	Women's College
ALICE SUSANNA JOHNSON,	<i>Lewisburg.</i>	University Avenue
BERTHA MAY NOLL,	<i>Lewisburg.</i>	North Fourth Street
FRANCES EMILY SEELEY,	<i>Austin.</i>	Women's College
ADA ALBERTA SMITH,	<i>Paxinos.</i>	Women's College
FLORENCE DALE WOLFE,	<i>Lewisburg.</i>	Lewisburg

THE SECOND YEAR CLASS.

JEANNETTE CAROLYN OWENS,	<i>Lewisburg.</i>	South Sixth Street
MARY JOSEPHINE WOLFE,	<i>Lewisburg.</i>	South Third Street

THE FIRST YEAR CLASS.

NAME.	RESIDENCE.	ROOM.
KATHERINE CLAYTON,	<i>Lewisburg.</i>	South Fourth Street
SARAH MARIE DERR,	<i>Lewisburg.</i>	Market Street
MAY ANGELINE EVERITT,	<i>Vicksburg.</i>	Vicksburg
GRACE KATHERINE EVERITT,	<i>Vicksburg.</i>	Vicksburg
ALVESTA GEARHART REBER,	<i>Lewisburg.</i>	South Third Street
ELIZABETH STEPHENS,	<i>Lewisburg.</i>	South Sixth Street
ETHEL MARGARET TELFORD,	<i>New York City.</i>	Women's College

PURSUING SELECT STUDIES.

EDNA IRENE ANGSTADT,	<i>Lewisburg.</i>	Lewisburg
MARGARET EDITH BAKER,	<i>Milton.</i>	Milton
MARGARET ELLIS BUOY,	<i>Milton.</i>	Milton
ETHEL CLARK,	<i>Media.</i>	Women's College
JULIA QUAY CLUSH,	<i>Sunbury.</i>	Sunbury
ANGELE DARDENNE,	<i>Port Allegheny.</i>	Women's College
NORA DETWILER,	<i>Connellsville.</i>	Women's College
LILLIAN EMMA DUFF,	<i>New Castle.</i>	Women's College
BEATRICE MAY FRYMIRE,	<i>Watsonstown.</i>	Watsonstown
MABEL ELIZABETH GRITTNER,	<i>Turbotville.</i>	Turbotville
MIRIAM EVANS,	<i>Punxsutawney,</i>	Women's College

NAME.	RESIDENCE.	ROOM.
CARRIE MAY GRUGAN,	<i>West Milton.</i>	West Milton
EVELYN REED HILLIER,	<i>Burlington, N. J.</i>	Women's College
LENA CHARLOTTE JACOBY,	<i>Sunbury.</i>	Sunbury
GRACE JOHNSON,	<i>Northumberland.</i>	Northumberland
ELIZABETH KERCHNER,	<i>Sunbury.</i>	Sunbury
ANNA LOUISE LANGHORNE,	<i>Philadelphia.</i>	Women's College
MARY LOUISE MARSH,	<i>Lewisburg.</i>	North Third Street
JANET STEELE MENCH,	<i>Mifflinburg.</i>	Mifflinburg
KATE HYDE MCCLOSKEY,	<i>Renovo.</i>	Women's College
MABEL RUTH REBER,	<i>Mifflinburg.</i>	Mifflinburg
MARIAN HARVEY ROGERS,	<i>Burlington, N. J.</i>	Women's College
NELLIE STEVENS,	<i>Sunbury.</i>	Sunbury
WINIFRED WERKHEISER,	<i>West Milton.</i>	West Milton

SUMMARY.

Senior Class	9
Fourth Year Class.....	10
Third Year Class.....	9
Second Year Class.....	2
First Year Class.....	7
Pursuing Select Studies.....	24
Students in Art and Elocution not otherwise counted.....	6
Total	67

COURSES OF STUDY

The Bucknell Institute offers to young women three courses of study, each extending over five years. Students are admitted to advanced standing, if upon examination they are found to have satisfactory knowledge of the branches which the class they propose to enter has already completed.

Credentials from Graded Schools are accepted in the studies of the First and Second Years.

Credentials are accepted for the Third and Fourth Years from schools whose curricula are equivalent to that of Bucknell Institute; also from accredited private teachers, in studies which are *continued* after entrance.

I. THE LITERARY COURSE.

The Literary Course embraces, in MATHEMATICS, Arithmetic, common and advanced, Algebra and Geometry, plane and solid, and Higher Algebra with Trigonometry and Analytical Geometry as electives; in LATIN, four years; in GERMAN, two years, and a third year elective with FRENCH; in FRENCH, one year; and in ITALIAN and SPANISH, an optional course; in SCIENCE, Physical Geography, Botany, Astronomy, Physics, Physiology, Chemistry, and Geology. In these branches the students have the advantages afforded by the College Observatory, Laboratory, and Museum. The course also includes Rhetoric, Composition, Civil Government, Psychology, Ethics, and History of Art.

Special attention is given to History and Literature, to the former of which six and to the latter of which three terms are devoted, besides the reading of English and American authors required for admission to College.

Graduates of the Institute in the Literary Course, upon the completion of eighteen courses of additional work in the College of Liberal Arts, may receive the degree of Bachelor of Letters.

II. THE CLASSICAL COURSE.

The Classical Course embraces, in MATHEMATICS, Arithmetic, Algebra, Geometry, plane and solid, University Algebra, Trigonom-

etry and Analytical Geometry; in LATIN, Grammar and Composition, Cæsar, Vergil, Cicero's Orations, Ovid, Cicero *de Senectute et de Amicitia*, Livy, and Velleius, in all, five years; in GREEK, Grammar and Composition, Xenophon's Anabasis, Homer's Iliad, Lysias' Orations, Plato's Apology, Homer's Odyssey, and the Greek Testament, in all, three years; in HISTORY, General History, and Greek and Roman History.

Students who complete the Classical course are admitted to the Sophomore Class in College as candidates for the first degree in Arts.

III. THE LATIN SCIENTIFIC COURSE.

The Latin Scientific Course corresponds to the Classical course except that scientific subjects are substituted for the first two years of Greek, and German for the third year of Greek.

Students who complete the Latin Scientific course are admitted to the Sophomore Class in College as candidates for the first degree in Philosophy.

Students in the fifth year Classical or Latin Scientific course recite to the professors in the College.

Students who do not wish to pursue a course of study may elect such subjects in connection with recitations of the regular classes as they may be qualified to pursue.

AGE REQUIREMENT FOR ADMISSION.

The required age for admission to the first-year class or to pursue select studies is twelve years, and a proportionate increase of age for admission to advanced classes.

CURRICULA

Arabic numerals indicate the number of recitations a week
in each subject.

I. THE LITERARY COURSE.

FIRST YEAR.

- | | |
|--|--------------------------|
| I. TERM—Algebra, 5,
Latin, 5,
History, 5, | English, 4,
Bible, 1. |
| II. TERM—Algebra, 5,
Latin, 5,
Drawing, 5, | English, 4,
Bible, 1. |
| III. TERM—Geometry, 5,
Latin, 5,
History, 5, | English, 4,
Bible, 1. |

SECOND YEAR.

- | | |
|--|--|
| I. TERM—Higher Arithmetic, 5,
Cæsar, Introduction, 5,
Ancient History, 5, | Rhetoric, 4,
Bible, 1. |
| II. TERM—
<div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> { Bookkeeping,
 Commercial Arithmetic, 5,
 Cæsar, 5, </div> | Ancient History, 5,
Literature, 4,
Bible, 1. |
| III. TERM—Physical Geography, 5,
Cæsar, 5,
Ancient History, 5, | Literature, 4,
Bible, 1. |

THIRD YEAR.

- | | |
|------------------------|----------------|
| I. TERM—Algebra, 5, | Elocution, 4, |
| Cæsar, 5, | Bible, 1. |
| German, 5 <i>or</i> | |
| History of England, 5, | |
| II. TERM—Algebra, 5, | Literature, 4, |
| Cicero, 5, | Bible, 1. |
| German, 5, <i>or</i> | |
| Civics, 5, | |
| III. TERM—Algebra, 5, | Literature, 4, |
| Cicero, 5, | Bible, 1. |
| German, 5, <i>or</i> | |
| Botany, 5, | |

FOURTH YEAR.

- | | |
|-----------------------|--------------------------|
| I. TERM—Geometry, 5, | German, 5, <i>or</i> |
| Vergil, 5, | Physiology, 5, <i>or</i> |
| Cicero, 5, | Chemistry, 5. |
| II. TERM—Geometry, 5, | German, 5, <i>or</i> |
| Vergil, 5, | Astronomy, 5. |
| { Cicero, } | |
| { Ovid, } 5, | |
| III. TERM—Physics, 5, | German, 5, <i>or</i> |
| Vergil, 5, | Geology, 5. |

SENIOR YEAR.

- | | |
|---------------------------------|----------------------|
| I. TERM—Psychology, 5, | Bible, 1, |
| English Literature, 5, | Composition, 1, |
| French, 5, <i>or</i> | Elocution, 1. |
| German, 5, <i>or</i> | |
| Solid Geometry, 5, | |
| II. TERM—English Literature, 5, | Bible, 1, |
| History of Art, 5, | Composition, 1, |
| French, 5, <i>or</i> | Elocution, 1, |
| German, 5, <i>or</i> | Physical Culture, 5. |
| Algebra, 5, | |

- III. TERM—Ethics, 5, Bible, 1,
 American Literature, 5, Composition, 1,
 French, 5, *or* Elocution, 1.
 German, 5, *or*
 Trigonometry, 5,

II. THE CLASSICAL COURSE.

FIRST YEAR.

- I. TERM—Algebra, 5, English, 4,
 Latin, 5, Bible, 1.
 History, 5,
- II. TERM—Algebra, 5, English, 4,
 Latin, 5, Bible, 1.
 Drawing, 5,
- III. TERM—Geometry, 5, English, 4,
 Latin, 5, Bible, 1.
 History, 5,

SECOND YEAR.

- I. TERM—Higher Arithmetic, 5, Rhetoric, 4,
 Cæsar, Introduction, 5, Bible, 1.
 Ancient History, 5,
- II. TERM—
 Bookkeeping, Ancient History, 5,
 Commercial Arithmetic, 5, Literature, 4,
 Cæsar, 5, Bible, 1.
- III. TERM—Physical Geography, 5, Literature, 4,
 Cæsar, 5, Bible, 1.
 Ancient History, 5,

THIRD YEAR.

- I. TERM—Algebra, 5, Elocution, 4,
 Cæsar, 5, Bible, 1.
 Greek, 5,

II. TERM—Algebra, 5,	Literature, 4,
Cicero, 5,	Bible, 1.
Greek, 5,	

III. TERM—Algebra, 5,	Literature, 4,
Cicero, 5,	Bible, 1.
Greek, Anabasis, 5,	

FOURTH YEAR.

I. TERM—Geometry, 5,	Cicero, 5,
Vergil, 5,	Greek, Anabasis, 5.

II. TERM—Geometry, 5,	{ Cicero, } 5,
Vergil, 5,	

III. TERM—Physics, 5,	Iliad, 5,
Vergil, 5,	Anabasis, 5.

SENIOR YEAR.

I. TERM—Solid Geometry, 5,	Bible, 1,
Cicero de Senectute, 5,	Composition, 1,
{ Greek Prose Composition, 5,	Elocution, 1.
{ Odyssey,	

II. TERM—Algebra, 5,	Bible, 1,
Livy, 5,	Composition, 1,
{ Lysias,	Elocution, 1,
{ Greek Testament, 5,	Physical Culture, 5.

III. TERM—Trigonometry, 5,	Bible, 1,
Velleius and Pliny, 5,	Composition, 1,
{ Plato,	Elocution, 1.
{ Greek Testament, 5,	

III. THE LATIN SCIENTIFIC COURSE.

FIRST YEAR.

I. TERM—Algebra, 5,	English, 4,
Latin, 5,	Bible, 1.
History, 5,	

- II. TERM—Algebra, 5, English, 4,
 Latin, 5, Bible, 1.
 Drawing, 5,
- III. TERM—Geometry, 5, English, 4,
 Latin, 5, Bible, 1.
 History, 5,

SECOND YEAR.

- I. TERM—Higher Arithmetic, 5, Rhetoric, 4,
 Cæsar, Introduction, 5, Bible, 1.
 Ancient History, 5,
- II. TERM—
 { Bookkeeping, Ancient History, 5,
 { Commercial Arithmetic, 5, Literature, 4,
 Cæsar, 5, Bible, 1.
- III. TERM—Physical Geography, 5, Literature, 4,
 Cæsar, 5, Bible, 1.
 Ancient History, 5,

THIRD YEAR.

- I. TERM—Algebra, 5, Elocution, 4,
 Cæsar, 5, Bible, 1.
 German, 5, *or*
 History of England, 5,
- II. TERM—Algebra, 5, Literature, 4,
 Cicero, 5, Bible, 1.
 German, 5, *or*
 Civics, 5,
- III. TERM—Algebra, 5, Literature, 4,
 Cicero, 5, Bible, 1.
 German, 5, *or*
 Botany, 5,

FOURTH YEAR.

- I. TERM—Geometry, 5, German, 5, *or*
 Vergil, 5, Physiology, 5, *or*
 Cicero, 5, Chemistry, 5.

- | | |
|-----------------------|----------------------|
| II. TERM—Geometry, 5, | German, 5, <i>or</i> |
| Vergil, 5, | Astronomy, 5. |
| { Cicero, } | |
| { Ovid, } | 5, |
-
- | | |
|-----------------------|-----------------------|
| III. TERM—Physics, 5, | German, 5, <i>or</i> |
| Vergil, 5, | Geology, 5, <i>or</i> |
| | Solid Geometry, 5. |

SENIOR YEAR.

- | | |
|----------------------------|-----------------|
| I. TERM—Solid Geometry, 5, | Bible, 1, |
| Cicero de Senectute, 5, | Composition, 1, |
| German, 5, <i>or</i> | Elocution, 1. |
| French, 5, | |
-
- | | |
|----------------------|----------------------|
| II. TERM—Algebra, 5, | Bible, 1, |
| Livy, 5, | Composition, 1, |
| German, 5, <i>or</i> | Elocution, 1, |
| French, 5, | Physical Culture, 5. |
-
- | | |
|----------------------------|-----------------|
| III. TERM—Trigonometry, 5, | Bible, 1, |
| Velleius and Pliny, 5, | Composition, 1, |
| German, 5, <i>or</i> | Elocution, 1. |
| French, 5, | |

METHODS OF INSTRUCTION

I. PSYCHOLOGY AND ETHICS.

Psychology is taught by text-book and informal lectures. The relation of Psychology to education is made a special feature of the course.

The aim in the Course in Ethics is to make the instruction as practical as possible. Theses on problems in Ethics are required of each student taking the subject, in addition to recitations from text-books.

II. LITERATURE AND ART.

LITERATURE is taught by topical outlines, the elaboration of which depends upon a sympathetic study of the masterpieces in connection with the lives and times of the writers. The subject is so presented that a vital experience results rather than an empty form of knowledge. The object of the course is to cultivate and ennoble the emotions, to stimulate the imagination, and to reinforce the will with strong and exalted motives.

THE HISTORY OF ART is offered in the Senior Year, Literary Course. The aim of the course is to give a general knowledge of the development of art and to lead to an acquaintance with individual artists and their work. Some attention is given to the theories concerning the origin of the art-impulse itself, and the law of the mental evolution which has governed the history of art.

III. HISTORY.

History. Six terms are devoted to this study. The course embraces General History, the History of the United States, of England, of Greece, and of Rome. Efforts are made to show the learner that History is not mere facts in chronological order, but a record of the development of civilization.

Civil Government. The origin and growth of our institutions, the functions of the various departments of the National, State,

and local governments, the political history of the people, the interpretation and construction of the Constitution, are discussed.

IV. THE ENGLISH LANGUAGE.

English Grammar. The aim is to train the pupils to speak and write the English language with accuracy and force.

Rhetoric is taught as a practical aid to English Composition. Daily exercises in composition are required.

English Composition is required throughout the course. Classes in Composition meet weekly for general criticism and the assignment of work. One essay is required from each student monthly, and an exercise in rapid and concise writing is required weekly.

V. THE LATIN LANGUAGE.

Paradigms of Declension and Conjugation with the Principles of Syntax, are introduced gradually, after many illustrations. English sentences are translated into Latin, readiness in Latin Composition and a correct style being thus acquired.

The following courses are offered: 1. Latin Grammar and Lessons; 2. Eutropius; 3. Cæsar, Gallic War; 4. Vergil, *Æneid*; 5. Cicero, Orations; 6. Ovid; 7. Cicero, *de Senectute*, and Livy; 8. Livy, Books XXI and XXII; 9. Velleius and Pliny.

VI. THE GREEK LANGUAGE.

The first half of the Third Year is spent in acquiring sufficient knowledge of forms and inflections to commence the study of Xenophon's *Anabasis*. During the last half year, special attention is given to the inflection and syntax of nouns, pronouns, and adjectives. The reading of Xenophon is continued in the first term of the Fourth Year, and the forms and syntax of verbs made a special study. Homer is then read for one term and a half, and the difference between Homeric and Attic forms is noted. During the last half term Xenophon is reviewed, that the student may refresh her knowledge of Attic Greek, and may not find her transition to College needlessly difficult. Almost daily drill is given in turning into Greek, sentences based on the text of Xenophon.

The following courses in Greek are offered to students in the Classical Course: 1. Greek Lessons; 2. Xenophon's *Anabasis*; 3.

Homer's Iliad; 4. Lysias' Orations; 5. Homer's Odyssey; 6. Plato's Apology; 7. Greek New Testament.

VII. MODERN LANGUAGES.

1. French, Italian, and Spanish. The modern languages are taught by comparing them with the mother tongue of the pupil, if there be any relation between them. If there is none, they are compared with the Latin and Greek languages. In French, rules are taught by which the words that are not exactly the same in the two languages are easily made into French.

French Syntax is taught by examples and illustrations from readings. The grammar is taught from the language, and not the language from the grammar.

As far as practical only French is spoken in the classroom. Extracts are read from the best French literature. Conversations are held in French on the readings, stories are related, and compositions prepared in French by the pupil.

The aim is to teach the modern languages so that they can be spoken correctly.

The same method is used in teaching Spanish and Italian.

2. German. In the study of German the aim is to get knowledge of the language in an all-round way. This is accomplished not alone through the study of grammar and the translation of German into English, but by daily practice in conversation, the committing to memory of poems and idioms, and through an acquaintance with biography and the different phases of German life. As little English as practicable is used in the classroom. Throughout the course there is constant sight reading, translation at hearing, and translation from English into German.

The reading of the second year includes the best German authors studied in connection with Keller's History of German Literature.

VIII. MATHEMATICS.

Arithmetic. Two objects are considered in teaching the subject; first, to give the student a practical knowledge of all ordinary business problems and calculations; second, to develop her ability to think logically and rapidly. The memorizing of rules and mechanical processes is not required, but independent

thought, logical analysis and neatness, clearness and accuracy in all written work are demanded. A drill in Mental Arithmetic is combined with the required work of the text-book.

Elements of Algebra. Three terms are given to this subject. There is thorough drill in the fundamental operations, and the idea that these are simply the applications of arithmetical processes to symbols of general value is kept constantly in mind. The course includes Quadratic Equations, Theory of Exponents, Variation, and Series.

Geometry. The course includes Plane and Solid Geometry. Besides the demonstrations of Theorems given in the text-book, original demonstrations and the solution of problems are required.

Higher Algebra. The topics discussed are: Progressions, Theory of Limits, Differentiation, Development of Functions into Series, Convergency and Summation of Series, Logarithms, Compound Interest and Annuities, Permutations and Combinations, Probability, Continued Fractions, and the Theory of Equations.

Trigonometry. The course includes Plane and Spherical Trigonometry. Time is given to the numerical illustrations of principles for the purpose of making sure that the meaning and use of formulæ demonstrated and learned are thoroughly understood.

Analytical Geometry. The student is taught the elementary properties of the right line and the conic sections. The course is intended to give a clear conception of the methods of Cartesian Analysis, rather than extensive knowledge of its results.

IX. SCIENCE.

Physics. The student is thoroughly grounded in the elements of mechanics and physics. The historical beginnings of each subject, and subsequent developments, are sketched in brief lectures. No pains are spared to familiarize the pupils with the laws of these sciences by instruction, experiment, review, and repeated examination. The truth of principles is proved, except where the demonstration involves the higher mathematics. The apparatus of the College is available for class use.

Astronomy. Descriptive Astronomy discusses the earth's relation to the solar system; the masses, motions, and orbits of each member; the causes and consequences of the motions of the earth; general boundaries of the constellation of the Zodiac and Northern

Heavens; the accepted theories of comets, meteors, and nebulae. Charts, star maps, globes, and other apparatus are used, and the student is afforded privileges of observation in the College Observatory.

Physical Geography lays a broad foundation for subsequent work in all sciences. Special attention is given to the physical features of the United States. Drawings, photographs, colored and relief maps, and specimens from the Museum and field work aid to make the subject clear.

Geology. The student is required to master the elements of lithological, structural, dynamic, and historical Geology. Specimens of various rocks and minerals are handled in class; their composition, characteristics, and place in nature are explained; the structure of the earth in its present form is studied; the history of its evolution, the age and characteristics of its strata, the chief geological features of each continent, and the forces at work are considered.

Botany is taught by text-book and field work. A brief outline is first obtained of plant structure, physiology, growth, and reproduction. Lectures explaining special forms of vegetable growth, and the flora of this country, complete the work.

Physiology. Every effort is made to impart clear ideas of the structure, parts, and functions of the human body. Special attention is given to the chemistry of foods, the laws of health, and the effects of stimulants and narcotics. Suggestions are also made as to poisons and their antidotes, the care of the sick, disinfection and sanitation, and accidents and emergencies. The subject is illustrated by the use of a manikin, charts, and preparations.

Descriptive Chemistry is taught by text-books, lectures, and experiments. The object of the course is to give the student a general knowledge of the common elements, their sources, uses, compounds, and behavior toward other elements and compounds, and to drill the student in writing formulæ and solving chemical equations. To accomplish this, each student will be expected to spend at least five hours each week in the Laboratory, studying the characteristics and reactions of the elements and their compounds, and performing the experiments outlined in the text and lectures. Notes will be kept by each student, describing the experiment and giving the equation which represents the reaction taking place.

PHYSICAL CULTURE.

The health of the students is made a prime object of attention, and sanitary requirements are carefully observed. The Institute Gymnasium is furnished with Indian clubs, dumb bells, wands, rings, hoops, guns, wall pulleys, parallel bars, etc., and classes in Physical Culture are organized for the benefit of all students. The exercises practiced are such as tend to develop grace and strength. The Institute Campus of six acres furnishes facilities for exercises. Lawn Tennis and other outdoor games are encouraged and exercise in the open air is required.

ÆSTHETIC CULTURE.

It is intended that the pupils of the Institute shall have the influence unconsciously received from painting, music, and refined surroundings, as well as direct instruction in Literature, Music, and Art. Special instruction in Music and Art is given in the schools devoted to those subjects.

SOCIAL CULTURE.

Pupils are trained to observe the usages of good society. Meetings of various organizations for improvement in Literature, Music, and Art and receptions in charge of the pupils add variety to student life. No effort is spared to give the pupils the advantages of a cultured home. The purpose is to develop the social life of the Institution within itself. Students are not permitted, during term-time, to visit in neighboring towns. The number of social functions during the term is limited, and the consent of the Dean must be obtained for each function at least one month before it is to occur.

RELIGIOUS TRAINING.

The Institute is distinctly Christian in its influence. Morning and evening Chapel in the Hall of the Institute building is attended by all students in the Institute courses, special students, and women pursuing studies in the School of Music. College women living in the Institute attend evening Chapel.

Attendance upon Sabbath school and church services in town is required. All students have weekly recitations in Inductive Bible Study. The students have organized several classes for Scripture study.

The Young Women's Christian Association, a voluntary society open to the officers and students of the Institute, meets weekly. The regular Tuesday evening prayer-meeting, missionary and temperance work, special Bible Classes, are in charge of this Association.

SPECIAL BRANCHES.

1. Italian and Spanish may be taken up as optional studies. All optional studies must be pursued in connection with the regular classes.

2. Bible instruction is given once a week throughout the entire course.

3. Essays are required of all students each month, and themes each week.

4. Two declamations are required of each student during each term.

5. Exercises in either Elocution or Reading are required once a week of all classes.

PUBLIC EXERCISES.

THE EXERCISES OF THE GRADUATING CLASS.

The Commencement Exercises of the Institute are held in the College Commencement Hall on Tuesday afternoon of Commencement week.

THE EXERCISES OF THE FOURTH YEAR CLASS.

The exercises of the Fourth Year Class, a combined musical and literary entertainment, are held in the Chapel of the Institute on the last Saturday evening in the month of April.

THE CONTEST IN ELOCUTION.

A contest in Elocution for the prize in that subject, open to all the members of the Institute, takes place in Bucknell Hall on the second Saturday evening in the month of May.

ALUMNÆ SOCIETIES.

The **Alumnæ Association** holds its anniversary on Monday afternoon of Commencement week.

The **Lewisburg Alumnæ Club** meets at the Institute on the second Tuesday of each month during term-time.

The **Philadelphia Alumnæ Club** is composed of graduates living in and near that city.

STUDENTS' LOAN SOCIETY OF BUCKNELL INSTITUTE.

In June, 1887, there was organized in connection with Bucknell Institute an association for the purpose of assisting young women of limited means to obtain an education. A fund was established by gifts from the Alumnæ and friends of the Institute. The money is loaned to beneficiaries, who obligate themselves to return it, *without interest*, as soon after their graduation as they may be able.

But for the help of this Association, some of the best of our graduates would have been deprived of the training which has fitted them for the positions they now fill as teachers, authors, missionaries, and pastors' helpers.

During the last twenty years fifty-two young ladies received aid. More than one half of these have returned the loan in full.

The annual meeting for the election of officers is held in January.

The payment of one hundred dollars constitutes the donor a Life Member of the Association; five dollars annually, an Active Member.

Contributions should be sent to the Treasurer, Mrs. John T. Judd, Lewisburg, Pa. Any information will be given by the President, Mrs. Katharine B. Larison, Lewisburg, Pa., or Mrs. Calvin A. Hare, Corresponding Secretary, Lewisburg, Pa.

DEPARTMENT OF ELOCUTION.

MISS EDITH SCHILLINGER.

This department is open to all members of the Institute. Its aim is the correct and effective utterance of thought. Special attention is given to Voice Culture, Articulation, including Pronunciation and Expression. Weekly Rhetoricals afford opportunity for

platform work. Bible reading and study of Shakespere have places in the course. Special courses are offered to students who wish to take private lessons in elocution. Particular attention is given to curing persons of stammering and other defects in speech.

SPECIAL STUDENTS IN ELOCUTION.

NAME.	RESIDENCE.
ALBERTA LILLIAN BRONSON,	Girardville
HANNAH BARTON BUBB,	Lewisburg
CECIL RUSSELL CHILDS,	Truxton, N. Y.
JOSEPH LESLEY CROWELL,	Perth Amboy, N. J.
RACHEL MIRIAM DAVIS,	Woodstown, N. J.
LILLIAN EMMA DUFF,	New Castle
MAY ANGELINE EVERITT,	Vicksburg
GRACE KATHERINE EVERITT,	Vicksburg
BEATRICE MAY FRYMIRE,	Watsonstown
MARGARET CHRISTINE GRETZINGER,	Lewisburg
ELIZABETH LOUDON HEINSLING,	Altoona
BLANCHE ELIZABETH HENDERSON,	Montgomery
RUSSELL CONWELL HOFFMAN,	Cheltenham
MARY JANE IREY,	Danville
GRACE JOHNSON,	Northumberland
EMMA ELIZABETH KEISER,	Mt. Carmel
FRED. W. McALLISTER,	West Pittston
MARGARET McCLURE,	Lewisburg
JANNET STEELE MENCH,	Mifflinburg
MARCUS OPPENHEIMER,	Bedford
ELEANOR EMMA PROSS,	Lewisburg
HESTER ELLEN PYLES,	Camp Springs, Md.
GRETCHEN ANNETTE RADACK,	Titusville
ANNA E. REED,	Milton
MARIAN HARVEY ROGERS,	Burlington, N. J.
GRACE ROSSITER,	Sunbury
MARY EDNA STAROOK,	Lewisburg
ELIZABETH STEPHENS,	Lewisburg
NELLIE STEVENS,	Sunbury
RUBY VANMINKA STUCK,	Tower City
ARTHUR DAVID WALTZ,	Hepburnville
ELIZABETH BOWMAN WOLFE,	Lewisburg

THE ART DEPARTMENT

MISS GEORGINA K. SCOTT.

The facilities for the study of Art have been greatly increased by the accommodations allotted to this Department, in a special studio, which provides such adjustments for admission of light, and unencumbered wall surface as to render it adapted for the execution and display of art productions.

The regular course in Art covers three years, with two lessons a week and daily practice in the Studio. This course offers favorable opportunity for work preparatory to professional study and teaching. It contemplates thorough instruction, both individual and class, in the fundamental principles of the subject, black-board work illustrative of the same; also lectures on various phases of the work as they arise, such as perspective, proportion, relation of heights, value of a line, human figure, and theory of color.

The course each year consists of:

A. Drawing—common objects from the flat, or enlargement by scale, antique, floral casts, still life, animals, etc.

B. Design as applied to flat objects.

C. Construction: The consideration of forms in three dimensions, representing solid objects; modeling in clay and wax; pottery and metals.

D. Fine Arts: Realistic treatment of form to its highest degree, through the medium of oils, water-colors, pastels, and china decoration. The work done under this head demands the exercise of all knowledge and training previously gained.

In the division of Fine Arts, students elect one of the four subjects named.

Record is kept of attendance, both upon lessons and practice hours of each week. On the successful completion of the entire course, a certificate of proficiency will be given.

Students who do not desire the certificate course, and whose interest is in Decorative Work, will receive the requisite instruction in the latest methods—China Painting, Tapestry, Dyeing, and Applied Design in other mediums and materials.

Charges for instruction in Art are as follows:

	Per Annum.
Drawing	\$24.00
Crayoning	33.00
Painting in Oil, Water Colors, Pastel, or on China	60.00
	Per Lesson.
Special individual instruction in Painting.....	\$1.00

All bills must be paid to the Registrar of the University, within the first ten days of each term.

Freehand Drawing is a part of the required work of the school without extra charge.

ART EXHIBIT.

On Saturday, Monday, and Tuesday of Commencement week, a display of art products by the pupils of the School of Art is made in the Studio. At this time a committee of Art students receives and entertains all those who visit the Studio.

STUDENTS IN ART.

NAME.	RESIDENCE.
NORA DODSON,	Hazelton
ANNA KALER DREISBACH,	Lewisburg
LENA GARVER FORGY,	McVeytown
STANLEY HARRIS,	Lewisburg
HELEN HARE,	Lewisburg
EVELYN REED HILLIER,	Burlington, N. J.
CHARLES THOMAS HORAM,	Lewisburg
KATE HYDE McCLOSKEY,	Renovo
RUTH BARBARA MOHN,	Lewisburg
ESTHER M. OCKER,	Lewisburg
MARY FLORENCE ROLLINS,	Altoona
FRANCES EMILY SEELEY,	Austin
MARGARET WEDDELL,	Lewisburg

GENERAL INFORMATION

ADVANTAGES.

The Bucknell Institute offers to young women superior educational advantages. Its location in a University town assures an atmosphere of study and the benefit of numerous literary exercises, lectures, and addresses. The students in the Institute have the use of the Library and apparatus of the Institute, and also of the College Astronomical Observatory, Chemical Laboratory, Museum and Library, and the various apparatus of the University. An isolated school could not provide for itself these advantages at a cost of less than a quarter of a million dollars.

During the year 1905 about forty thousand dollars was expended in enlarging and improving the women's buildings.

ADMINISTRATIVE AND OTHER REGULATIONS.

1. The general control of the Women's College, Institute, and School of Music is vested in the President of the University.

2. The government of the Institute, subject to such control, rests with the Dean.

3. Young women, whether attending the College, Institute, or School of Music, are subject to the rules and regulations governing young women attending the Women's College.

RULES.

The laws governing the Women's College are enacted by the Board of Trustees and a copy is given to each student when she enters the Institution.

Any officer of the Institute becoming cognizant of violation of regulations by any pupil shall report the same to the Dean, who shall make a record of the fact in a book provided for the purpose. Any second violation by the same pupil shall be reported to the President of the University; and if, in the judgment of the President of the University and the Dean, the offense be of sufficient gravity, the parent or guardian of the offending pupil shall be notified.

Violations of the regulations of the Women's College or infraction of the laws of morality are punished by private reprimand, deprivation of privileges, or private withdrawal from the Institution.

Summary punishment may be inflicted whenever the interests of the Institution demand it.

PRIZES

I. BUCKNELL PRIZES.

The following prizes were founded by William Bucknell, of Philadelphia:

1. A First Senior Prize, to be awarded to the member of the graduating class who, being excellent in scholarship during the Senior Year, shall prepare the best essay.

2. A Second Senior Prize, to be awarded to the member of the graduating class who, being excellent in scholarship during the Senior Year, shall prepare the second best essay.

For the year 1910 the First Prize of twenty-four dollars was awarded to Lois May Brown, and the Second Prize of sixteen dollars to Helen King Bartol.

3. A Third Senior Prize to be awarded to the member of the graduating class who shall attain the highest grade in the studies of the Senior Year. This excludes all grades of studies not in the Senior Year, all Senior Studies taken before the Senior Year, and all studies not taken in the Institute.

For the year 1910 this prize of twenty-five dollars was awarded to Lois May Brown.

4. A First Fourth Year Prize, to be awarded to the member of the Fourth Year Class who, being excellent in scholarship during the year, shall prepare the best Fourth Year essay.

5. A Second Fourth Year Prize, to be awarded to the member of the Fourth Year Class who, being excellent in scholarship during the year, shall prepare the second best Fourth Year essay.

For the year 1910 these prizes were awarded as follows: Dorothy Wolfe received the First Prize of twenty dollars; Mary Anna Kunkel the Second Prize of fifteen dollars.

The fund consists of \$2,000, the income from which is to be devoted to these prizes annually in a manner more particularly defined in the donor's communication to the Trustees.

Themes for the Bucknell Essay Prizes will be drawn from the following works:

For 1911 Shakespere's Macbeth, Scott's Ivanhoe, Carlyle's Essay on Burns, Milton's Comus, L'Allegro, and Il Penseroso.

II. THE ELOCUTION PRIZE.

A prize in Elocution is offered to the student who shall give the best recitation at the Annual Contest.

For 1910 the prize was awarded to Miss Mary Edna Starook.

EXPENSES OF INSTITUTE STUDENTS

I. Boarding Students. The regular charge for Boarding Students is \$280.00 per annum; the other expenses, spending money, books, and clothing, will vary with the individual student.

An additional charge will be made when one student occupies a double room alone in the Main Building. Extra charge will also be made for front corner rooms in the West Wing.

Students are charged extra for the washing of dresses, and for the washing of more than twelve pieces per week.

For the rooms in the Bucknell Cottage and in New Cottage there is an extra charge, depending on the location.

Students from a distance will save inconvenience by applying for a room before the term opens. A deposit of ten dollars is required when a room is chosen. This amount is credited upon the regular term bills. Should a student for good reason be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

Students will be charged for damage done to furniture or to the room they occupy.

II. Day Students. The charges for Day Students amount to \$85.00 per annum.

III. Extra Studies. The charges for Elocution, Drawing and Painting, and Music will be found under those titles.

All bills must be paid within the first ten days of each term.

Checks and drafts should be drawn in favor of the Registrar of the University.

No bill will be made out for a shorter period than one term; and no deductions will be made, except in the charge of board, in case of a prolonged absence on account of sickness.

The expenses for Music, Printing, and other charges ordinarily incurred at Examination and on anniversary occasions, are paid by the class or classes which incur the expenses.

The fee for Graduation and Diploma is \$5.00.

Free scholarships, covering tuition, are awarded to children of Ministers of the Gospel *in actual service*.

For information respecting the Institute, address the Dean of the Department for Women, Thomas A. Edwards, A. M., or the President of the University.

BUCKNELL SCHOOL OF MUSIC

THOMAS ALPHEUS EDWARDS, A. M.,
DEAN.

PAUL GEORGE STOLZ, B. S.
ASSISTANT DIRECTOR. HARMONY, SCIENCE OF MUSIC.

MARY ELIZABETH BOYNTON,
PIANO, VIRGIL CLAVIER.

CHARLOTTE S. ARMSTRONG,
VIOLIN AND PIANO.

LYDIA A. BERKLEY,
PIPE ORGAN, AND PIANO.

BESSIE SUTHERLAND RICE, B. S.,
HARMONY AND VOCAL MUSIC.

GRADUATES, 1910.

NAME.	COURSE.	RESIDENCE.
MABEL CHRISTIAN,	<i>Piano, Harmony, History of Music.</i>	Bloomsburg
CLARA HARRIET COLLINS,	<i>Piano, Voice, Harmony, History of Music.</i>	Scottdale
MARY ELIZABETH STEVENSON,	<i>Piano, Harmony, History of Music.</i>	Berwick
SARA MARGARETTA WAY,	<i>Piano, Harmony, History of Music.</i>	Port Matilda

NAMES OF STUDENTS

NAME.	COURSE.	RESIDENCE.
WALTER THOMAS AFRICA,	<i>Voice.</i>	Huntingdon
EDNA IRENE ANGSTADT,	<i>Piano, Harmony.</i>	Lewisburg
LOIS BAER,	<i>Violin.</i>	Brooklyn, N. Y.
MARGARET EDITH BAKER,	<i>Piano, Harmony.</i>	Milton
HELEN KING BARTOL,	<i>Piano.</i>	Lewisburg
GEORGE THOMAS BENDER,	<i>Piano.</i>	Lewisburg
HANNAH CECIL BERTIN,	<i>Voice.</i>	Williamsport
LUCY BROWN,	<i>Piano.</i>	Lewisburg
RUTH BROWN,	<i>Piano.</i>	Lewisburg
FLORENCE MAY CLUM,	<i>Voice.</i>	Scranton
JULIA QUAY CLUSH,	<i>Piano.</i>	Sunbury
ALEXANDER CLEVELAND CONNER,	<i>Piano.</i>	Pittsburg
ANGELE DARDENNE,	<i>Voice, Harmony, History of Music.</i>	Port Allegheny
CLARENCE DERR,	<i>Piano.</i>	Milton
NORA DETWILER,	<i>Piano, Harmony, History of Music.</i>	Connellsville
HAROLD M. DORRELL,	<i>Voice.</i>	Alloway, N. J.
ALMA ELIZABETH DUCK,	<i>Piano.</i>	Rupert
LILLIAN EMMA DUFF,	<i>Piano.</i>	New Castle

NAME.	COURSE.	RESIDENCE.
HELEN HORTENSE EEDE,	<i>Piano.</i>	Ballston Spa, N. Y.
MIRIAM EVANS,	<i>Piano, Harmony.</i>	Punxsutawney
JOHN DIETRICH WITTICH FETTER,	<i>Voice.</i>	St. Clair
LENA GARVER FORGY,	<i>Piano, Harmony.</i>	McVeytown
MARY ALICE FOUST,	<i>Piano, Harmony.</i>	Milton
MARGARET CHRISTINE GRETZINGER,	<i>Piano.</i>	Lewisburg
MABEL ELIZABETH GRITTNER,	<i>Piano, Violin, Harmony.</i>	Turbotville
FRANCES LLOYD GROFF,	<i>Piano.</i>	Lewisburg
FRANKLIN JOSEPH GRONDE,	<i>Voice.</i>	Cogan Valley
CARRIE MAY GRUGAN,	<i>Piano, Harmony.</i>	West Milton
MARTHA HANN,	<i>Piano.</i>	Lewisburg
HELEN HARE,	<i>Piano.</i>	Lewisburg
MARIAN KATHERINE HARMAN,	<i>Voice.</i>	Montoursville
PAUL HARTER,	<i>Piano.</i>	Loganton
ETHEL MAY HEITER,	<i>Piano.</i>	Lewisburg
BLANCHE ELIZABETH HENDERSON,	<i>Piano.</i>	Montgomery
FLORENCE E. HESS,	<i>Piano, Harmony.</i>	Milton
NORMAN RAY HILL,	<i>Piano, Harmony.</i>	Newberry
EVELYN REED HILLIER,	<i>Piano, Harmony.</i>	Burlington, N. J.
CLARA MATILDA HINE,	<i>Piano, Harmony.</i>	Lewisburg
DALE DAVIS HOLLENBAUGH,	<i>Voice.</i>	Williamsport

NAME.	COURSE.	RESIDENCE.
MAY HOLLINGSHEAD,	<i>Piano.</i>	Milton
S. KATHRYN HOPPER,	<i>Voice.</i>	Lewisburg
ERNESTINE SUSANNA HYATT,	<i>Harmony.</i>	Lewisburg
LENA CHARLOTTE JACOBY,	<i>Voice, Harmony.</i>	Sunbury
HARRIET EVELYN JONES,	<i>Voice, Harmony.</i>	Sunbury
MARY SUSANNA JONES,	<i>Piano, Voice.</i>	Watson town
THOMAS JOSEPH JONES,	<i>Voice.</i>	Watson town
MATTHEW STANLEY KAUFFMAN,	<i>Piano.</i>	Lewisburg
ELIZABETH KERCHNER,	<i>Voice, Harmony, History of Music.</i>	Sunbury
MARY KLING,	<i>Piano.</i>	Lewisburg
BESSE KRAMER,	<i>Voice.</i>	Watson town
HELEN KRAMER,	<i>Voice.</i>	Watson town
MARY ANNA KUNKLE,	<i>Piano.</i>	Lewisburg
ANNA LOUISE LANGHORNE,	<i>Piano, Harmony.</i>	Philadelphia
LEAH ELIZABETH LINDIG,	<i>Piano.</i>	Lewisburg
HERBERT SPENCER LLOYD,	<i>Voice.</i>	Akron, Ohio
VIDA INEZ MAPLES DEN,	<i>Voice.</i>	Springfield, Mass.
MARY LOUISE MARSH,	<i>Piano, Harmony, History of Music.</i>	Lewisburg
BLANCHE LILLIAN MARTIN,	<i>Piano, Harmony.</i>	Milton
JENNIE MATHEWS MATHEWS,	<i>Piano, Harmony, History of Music.</i>	New Britain
KATE HYDE McCLOSKEY,	<i>Piano, Harmony, History of Music.</i>	Renovo

NAME.	COURSE.	RESIDENCE.
LAURA ELLEN MCGANN,	<i>Voice, History of Music.</i>	Lewisburg
JANET STEELE MENCH,	<i>Piano, Harmony.</i>	Mifflinburg
RALPH E. NOLL,	<i>Piano.</i>	Milton
KATHERINE EVA OLDT,	<i>Piano, Voice, History of Music.</i>	Lewisburg
ROBERT JOHN PARMENTER,	<i>Voice.</i>	Elmira
ELEANOR EMMA PROSS,	<i>Piano.</i>	Lewisburg
MARTHA RANCK,	<i>Piano, Harmony.</i>	New Columbia
RUSSELL RAY,	<i>Piano, Voice, Harmony.</i>	Swissvale
MABEL RUTH REBER,	<i>Voice, Harmony.</i>	Mifflinburg
ANNA E. REED,	<i>Piano, Harmony.</i>	Milton
EVA MAY RITTENHOUSE,	<i>Piano, Harmony.</i>	Scottdale
LEO LAWRENCE ROCKWELL,	<i>Voice.</i>	Lewisburg
MARIAN HARVEY ROGERS,	<i>Piano.</i>	Burlington, N. J.
MARY FLORENCE ROLLINS,	<i>Piano.</i>	Altoona
MRS. ROBERT ROUSH,	<i>Piano, Voice.</i>	Milton
RUTH ROYAL,	<i>Piano, Harmony.</i>	Camden, N. J.
KATHERINE MARIE RYAN,	<i>Voice.</i>	Asbury Park, N. J.
EDGAR ANDREW SABLE,	<i>Violin.</i>	Lewisburg
RUTH SUMMERS SAFFORD,	<i>Voice.</i>	Montrose
DEWITE SCHAFFNER,	<i>Piano, Harmony.</i>	Falls Creek
MARY E. SEILER,	<i>Violin.</i>	Milton

NAME.	COURSE.	RESIDENCE.
NITA SARA SHEEP,	<i>Piano, Voice, Harmony.</i>	Milton
BESSIE M. SMITH,	<i>Voice.</i>	Lewisburg
MARGARET E. SMITH,	<i>Guitar.</i>	Lewisburg
MILDRED ELLA SMITH,	<i>Piano.</i>	Youngsville
MARSHALL SMITH,	<i>Piano.</i>	Lewisburg
ELIZABETH STEPHENS,	<i>Piano.</i>	Lewisburg
FREDERICK WILLIAMS JOHN STAFFORD,	<i>Piano.</i>	Detroit, Mich.
MARY A. STERNER,	<i>Piano, Voice.</i>	Montgomery
LESLIE WELLINGTON STOUT,	<i>Violin, Voice.</i>	Audubon, N. J.
RUBY VANMINKA STUCK,	<i>Voice.</i>	Tower City
JOHN DAVIS TREVASKIS,	<i>Violin.</i>	Weatherly
MARGARET WEDDELL,	<i>Piano, Voice, Harmony.</i>	Lewisburg
WINIFRED WERKHEISER,	<i>Piano, Harmony.</i>	West Milton
HENRY CHARLES WOLFE,	<i>Violin.</i>	Lewisburg

SUMMARY.

Piano	61
Pipe Organ	1
Voice	34
Harmony—History of Music.....	32
Violin, Viola, Mandolin, Guitar.....	8
<hr/>	
Total Lessons per Week.....	165
Total Pupils	95

COURSES OF STUDY

The School of Music is under the general supervision of the Dean of the Department of Women, but has its own corps of instructors, each a specialist in his line. The courses are designed to afford every needed facility for the study of Vocal and Instrumental Music. An ample supply of instruments from the best makers is provided for practice.

INSTRUMENTAL MUSIC.

COURSE FOR THE PIANO-FORTE OF FOUR YEARS FOR GRADUATION.

The pupil is required to pursue the most thoroughly approved modern system of technical training. After the first rudiments have been mastered, the course of instruction leads to the practice of *études*, designed to unite with purely technical drill the requirements of artistic style and expression.

PIANO.

FIRST YEAR.

Musical Exercises and Gymnastics to prepare the hands for playing; Gurlitt, *Technic and Melody*, Book I; Kohler, *Practical Method*; Lebert and Stark, *Instruction Book*, Part I; Loeschorn, Op. 84 and 65; Kohler, Op. 157; Duvernoy *School of Mechanism*, Op. 120;; *Etudes* by Biehl, Lemoine, LeCouppey, Bertini and Czerny; introductory technical work; *Sonatinas*, Kuhlau, Clementi, Schytte; pieces by Behr, Bohm, Lange, Lichner and others.

SECOND YEAR.

Heller, *Studies*, Op. 45, 46 and 47; Loeschorn, Op. 66; Czerny, Op. 299; Berens, Op. 61; *Easier Mozart, Hayden, Beethoven Sonatas*; *Little Preludes* by Bach; *Bach Inventions, Scales, Arpeggios* and

other technical work continued; Salon pieces by Bendel, Kullak, Merkel, Nevin and other composers; preparatory octave and chord work.

THIRD YEAR.

Czerny, Op. 740; Cramer, 50 Studies; Clementi Gradus ad Parnassum; Moscheles, Op. 70; Bach Suites, Handel Suites, Scarlatti pieces, Beethoven Sonatas; introductory Chopin work; compositions by Grieg, Godard, MacDowell, Moszkowski and others; continued octave and chord work.

FOURTH YEAR.

Bach Preludes and Fugues; Italian Concerto; Chromatic Fantasy and Fugue; Kullak Octave Studies; Selected Chopin Etudes; Liszt Studies; Beethoven Sonatas, Op. 53 and 57; other compositions by Chopin, Liszt, Schumann, and selected works by Tausig, Moszkowski, Saint-Saens, Brahms and Rubinstein.

The outline is necessarily quite elastic and will adjust itself to the individual ability, requirements and purposes of each student.

COURSE FOR PIPE ORGAN.

This course is based upon:

Dudley Buck's Pedal Studies, and upon the works of Rink, Batiste, Lefébure-Wely, Guilmant, and others.

COURSE FOR THE VIOLIN.

The course is based upon:

The methods of Wohlfhast, Shubert and others for elementary students; the first part of De Beriot's School; Thirty-six Studies, Kayser; De Beriot's Second and Third Positions; Mazas Etudes Specials; Hermann's One Hundred Studies; Violin School; Ovide Musin; Bowing Studies, Casorti; Forty Studies, Kreutzer; Thirty-six Etudes, Fiorvilla. Pieces and solos by the best writers for the instrument are used throughout the course to develop style, phrasing, etc. Sonatas by Beethoven, Gade, Grieg and others, and concertos of Rode and Viotti are required for graduation.

COURSE FOR THE VIOLONCELLO.

Instruction for this instrument is based upon:

Méthode Pratique pour le Violoncello, par S. Lee; studies by Piatti and Romberg.

COURSE FOR THE VIOLA.

Bruni's Methods and Studies, by Campagnoli.

COURSE FOR CONTRABASSO (DOUBLE BASS).

Bottesini's Method.

VOICE CULTURE.

COURSE OF THREE YEARS FOR GRADUATION.

Careful instruction is given in the use of the voice, and the correct manner of producing purity of tone. To secure control over the voice and gain for it flexibility, fullness, and durability, thorough drills are afforded in such technical exercises as:

Lamperti's and Vannuccini's Italian Methods, Vocalises of Sieber, Concone, Tütgen, Vaccai, Bonaldi, Bordogni, Marchesi, and Ponafka; Lamperti's Studies in Bravura Singing. For expression and the development of a pure style, practice is afforded in singing the best English, German, Italian, and French Songs, Operatic Arias and Solos from the Oratorios.

Careful instruction and drill are given in sight-singing; and all students seeking to complete the course in Voice Culture are expected to acquire reasonable proficiency in this branch of the art of music.

COURSE IN HARMONY.

The study of Harmony is included in the other musical work, and a sound knowledge of its principles is required of all graduates of the School of Music. The text-books used are: Bussler's Harmonic Exercises, Homer Norris's Practical Harmony, Richter's Counterpoint, and Reicha's Course of Musical Composition, or equivalents.

THE ORCHESTRA.

CLASSES FOR ALL ORCHESTRAL INSTRUMENTS.

Students who are sufficiently advanced in any of the above musical instruments will have opportunity of practice in string quartettes, trios, concertos, and symphonies of Beethoven, Mozart and Haydn.

RECITALS.

Frequent recitals in the presence of the faculty and students of the School of Music and their friends are held to accustom students to playing in public, and for mutual improvement.

On the Friday evening prior to Commencement week a public recital of the School of Music is held in Bucknell Hall.

The public examination of those who desire certificates of proficiency is held in Bucknell Hall the Saturday afternoon before commencement. At this time each pupil plays or sings two pieces of high grade, and reads an essay on some subject connected with music.

TUITION.

Extra tuition is charged for instruction in Music, as follows:

Per Annum.

Vocal Music	\$60 00
Music on Piano or Organ.....	60 00
Harmony, in Class.....	18 00
Harmony, in private lessons.....	60 00
Use of Instruments for practice.....	10 00
Guitar, in Class.....	15 00

Per Lesson.

Special individual instruction in Music.....	\$1 00
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No reduction is made except in case of protracted illness.

Instruction in the Orchestra and in Harmony is free to pupils otherwise studying music.

Payment strictly in advance at the beginning of each term.

RESIDENCE OF MUSIC PUPILS.

Pupils in music reside in the Women's College and are under the care of the Dean of the Department for Women. Students pursuing any of the Institute courses can also take studies in music. Those who wish to make music a specialty are recommended to take at least one study each term in Language or Literature.

The regular charges for pupils in music, residing in the Institute, including one literary subject per term, are \$235 per annum. This *does not* include charges for instruction in music, which are determined by the number of lessons taken per week.

GRADUATION IN MUSIC.

Students who complete any of the Courses in Music and pass the examination, receive a certificate of proficiency. Students will not be taken as Seniors in Music until they have passed an examination before a committee consisting of members of the faculty and other appointed judges. Besides the examination before the Committee for admission to the Senior Class, students will be required to pass a preliminary examination at the opening of the spring term, and a final examination before Commencement week. Students will not be admitted to the final examination unless they have passed the preliminary examinations.

THE AVIRAGNET PRIZE.

Friends of the late Elysée Aviragnet have endowed a prize for excellence in Music. For 1910 this prize was awarded to Miss Sara Margareta Way.

GENERAL REGULATIONS.

Young ladies attending upon the School of Music are subject to the administration and other regulations enacted by the Board of Trustees for the government of students in the Women's College. Students of Music are also entitled to all the privileges of the Women's College.

For information respecting the School of Music, address the President of the University, or the Dean, Thomas Alpheus Edwards.

UNIVERSITY CALENDAR

1911.

Second Term Ends,.....Wednesday, March 22

SPRING RECESS.

Third Term Begins,.....Wednesday, March 29
 Sermon before the Christian Association,.....Sunday, April 9
 Declamation of the Third Form, Academy,.....Saturday, April 15
 Exercises of the Fourth-Year Class, Institute,..Saturday, April 22
 Contest in Elocution, Institute,.....Saturday, May 6
 Exhibition of the Junior Class, College,.....Friday, May 12
 Examinations,.....Tuesday to Friday, June 16
 Exhibition, School of Music,.....Friday, June 16
 Baccalaureate Sermon,.....Sunday, June 18
 Sermon before the Education Society,.....Sunday, June 18
 Examinations for Admission to College,.....Monday, June 19
 Meeting of the Alumnae of the Institute,.....Monday, June 19
 Annual Meeting of the Trustees,.....Tuesday, June 20
 Annual Meeting of the Alumni,.....Tuesday, June 20
 Graduation of the Fourth Form, Academy,.....Tuesday, June 20
 Graduating Exercises of the Institute,.....Tuesday, June 20
 Oration before the Alumni,.....Tuesday, June 20
 ANNUAL COMMENCEMENT, the 61st,.....Wednesday, June 21

SUMMER VACATION.

Fall Examinations for Admission to College,

Wednesday, September 20
 First Term Begins,.....Thursday, September 21
 Election of Class Officers, 3 p. m.,.....Friday, September 22
 Reception by Christian Association,.....Saturday, September 23
 Introductory Address,.....Monday, September 25
 Matriculation,Monday, November 20
 Thanksgiving (recess of three days),.....Thursday, November 23
 First Term Ends,.....Wednesday, December 20

1912.

Second Term Begins,.....Tuesday, January 2
 Second Term Ends,.....Wednesday, March 20
 Third Term Begins,.....Tuesday, March 26

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ELEVENTH SERIES

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CATALOGUE

1911-1912



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THE
SIXTY-SECOND CATALOGUE
OF THE
OFFICERS AND STUDENTS
OF
Bucknell University:
COLLEGE OF LIBERAL ARTS

FOR THE YEAR 1911-1912

1720

DEPARTMENTS.

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CALENDAR.

The Winter Term Ends.....	Wednesday, March 20, 1912
The Spring Term Begins.....	Wednesday, March 27, 1912
Annual Commencement.....	Wednesday, June 19, 1912
The Fall Term Begins.....	Thursday, September 19, 1912
The Fall Term Ends.....	Wednesday, December 18, 1912
The Winter Term Begins.....	Thursday, January 2, 1913

BUCKNELL COLORS: Orange and Blue.

BUCKNELL YELL: Yah, yah, yoo! Bucknell B. U.!

Wah, hoo, hoo wah, Bang!

PLAN AND PURPOSE OF THE UNIVERSITY.

CORPORATE RIGHTS.

The University was incorporated with full university powers by the Legislature of Pennsylvania, in an Act approved by the Governor on the fifth day of February, 1846. The management of the University is committed to a Board of Trustees, which is self-perpetuating. The trustees are prohibited, for any cause or under any pretext whatever, from encumbering by mortgage or otherwise the real estate or any other property of the institution. It is required by charter that no religious sentiments are to be counted a disability to hinder the election of an individual to any office among the teachers of the institution, or to debar persons from attendance as pupils, or in any manner to abridge their privileges or immunities as students in any department of the University.

BENEFACTORS.

The total property of the institution exceeds one million dollars. The productive investment amounts to over seven hundred thousand dollars. This money has been the gift of several hundred persons. Among the benefactors of the institution (including only those who have given ten thousand dollars or more) have been: DAVID JAYNE, JOHN PRICE CROZER, WILLIAM BUCKNELL, SAMUEL A. CROZER, HARRY SAMUEL HOPPER, HARRIET BUCKNELL HOPPER, JOHN D. ROCKEFELLER, CATHARINE A. WENTZ, CHARLES MILLER, JOHN J. CARTER, HENRY KIRKE PORTER, DAVID PORTER LEAS, ANDREW CARNEGIE.

The names of the benefactors will be published in the annual catalogue of the University forever.

THE MILLION-DOLLAR MOVEMENT.

The Board of Trustees at its meeting in January, 1903, authorized an effort to increase the endowment by one million dollars. It is expected to obtain this sum by gifts and legacies.

FORMS OF GIFTS.

To persons wishing to give money for the education of the young, the following forms of beneficence are suggested:

(a) Departments can be endowed for \$100,000 and upward.

(b) Professorships can be endowed for \$50,000 each.

(c) Fellowships can be endowed for \$10,000 each.

(d) Scholarships can be endowed by a gift of \$1,000 to \$5,000 each, the income to be given toward the expenses of the student. The income is estimated from the average income of the funds of the Institution, and is applied only in the year in which it falls due.

(e) Additions can be made to the loan fund which has been established. The interest from this is loaned to students, the principal being kept intact. In this way a large, active loan fund accumulates.

(f) A fund for the retirement of professors who, after long service, have, through age or infirmity, become unable to render further efficient service.

Each of these forms of beneficence will bear and perpetuate the name of the donor or of the person designated by him.

FORM OF BEQUEST.

To persons desiring to aid in increasing the efficiency of the schools in their work by preparing young men and young women for usefulness, the following form of bequest is recommended:

I give and bequeath to the Bucknell University, at Lewisburg, Pennsylvania, the sum of.....Dollars for the general purpose of said school, according to the Act of Assembly incorporating the same.

Or if for a special purpose:

I give and bequeath to the Bucknell University, at Lewisburg, Pennsylvania, the sum of.....Dollars for the establishment of a department, professorship, fellowship, scholarship, loan fund, or retirement fund, to bear and perpetuate the name of.....forever.

ORGANIZATION.

The University comprises four schools:

I. THE COLLEGE offers nine Courses of study, each of four years, and each leading to the appropriate degree:

1. The Classical Course.
2. The Philosophical Course.
3. The Course in Jurisprudence.
4. The Course in General Science.
5. The Course in Biology.
6. The Course in Chemical Engineering.
7. The Course in Civil Engineering.
8. The Course in Electrical Engineering.
9. The Course in Mechanical Engineering.

II. THE INSTITUTE for young women has three Courses of study, the Literary, the Classical, and the Scientific, leading to diplomas which admit to the Sophomore year in College.

III. THE ACADEMY is designed to fit young men for College, either for the Classical, Philosophical, Scientific, or Technological Courses.

IV. THE SCHOOL OF MUSIC has full Courses in instrumental and vocal music, and grants diplomas to those who complete any of the specified Courses.

These schools are one corporation, have one President, who has general charge, with a Principal in more immediate charge of each of the subordinate departments. All expenses are met from funds in the hands of a common treasurer.

THE BOARD OF TRUSTEES.

CHAIRMAN, HARRY S. HOPPPER, A.M.,
28 South Third Street, Philadelphia.

SECRETARY, A. JUDSON ROWLAND, D.D., LL.D.,
1701 Chestnut Street, Philadelphia.

TREASURER, DAVID PORTER LEAS, A.M.,
400 South Fortieth Street, Philadelphia.

ASSISTANT TREASURER, CALVIN A. HARE, A.M., Lewisburg.

RALPH A. AMERMAN, ESQ.	HON. HAROLD M. McCLURE, A.M.
HON. E. A. ARMSTRONG, A.M.	GEN. CHARLES MILLER, A.M.
JOHN P. CROZER, A.M.	GEORGE M. PHILIPS, PH.D., LL.D.
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DAVID PORTER LEAS, A.M.	MR. CHARLES S. WALTON.
*CRAIGE LIPPINCOTT, ESQ.	JOSEPH K. WEAVER, A.M., M.D.

MEETINGS OF THE BOARD.

The annual meeting is held on Tuesday of Commencement Week, at Lewisburg.

The semi-annual meeting is held on the second Thursday in January in Philadelphia.

* Deceased.

COMMITTEES OF THE BOARD.

COMMITTEE ON INSTRUCTION

A. JUDSON ROWLAND, D.D., *Chairman.*

MILTON G. EVANS, D.D.	LINCOLN HULLEY, LL.D.
REV. LEROY STEPHENS, D.D.	HON. ERNEST L. TUSTIN, A.M.
GEORGE M. PHILIPS, PH.D., LL.D.	RALPH A. AMERMAN,
AND THE PRESIDENT.	

COMMITTEE ON FINANCE.

JAMES S. SWARTZ, A.M., *Chairman.*

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HON. FRANCIS J. TORRANCE, A.M.	CHARLES S. WALTON,
AND THE PRESIDENT.	

COMMITTEE ON BUILDING AND LIBRARY.

HON. HAROLD M. McCLURE, A.M., *Chairman.*

GEN. CHARLES MILLER, A.M.	PRES. JOHN H. HARRIS, LL.D.
COL. JOHN J. CARTER, A.M.	

COMMITTEE ON PUBLICATION.

LEROY STEPHENS, D.D., *Chairman.*

DAVID PORTER LEAS, A.M.	MILTON G. EVANS, D.D.
AND THE PRESIDENT.	

THE UNIVERSITY PROPERTY.

I. THE MAIN COLLEGE.

The main College building is situated on a hill one hundred feet above the Susquehanna River, and overlooks scenery of unsurpassed beauty. It was designed by Thomas U. Walter, LL.D., architect of the dome and wings of the Capitol at Washington, D. C., and is in the Grecian style, combining dignity and simplicity. The building has a façade of three hundred and twenty feet. The central portion is eighty feet square, and is strengthened in front by four massive columns. On the first floor are six recitation rooms. On the second floor are the halls of the Theta Alpha and Euepia Literary Societies, and Museum of Natural History.

In the third story is Commencement Hall, with a seating capacity of fifteen hundred.

The wings on the eastern and western sides, respectively, of the Main Building, are each one hundred and twenty feet in length and four stories in height, and are used for students' rooms.

Several thousand dollars have been expended recently in improving the College building.

II. THE WEST COLLEGE.

The West College was erected in the year 1900. It is constructed of brick, four stories in height, trimmed with brownstone, and contains ninety-seven rooms, one of which is a hall for the use of the Young Men's Christian Asso-

ciation, and the others are designed for the residence of students.

III. THE EAST COLLEGE.

The East College is a building of brick, trimmed with brownstone. The first story is assigned to the Electrical Laboratory and Physical Laboratory, with a floor surface of some thirty-five hundred square feet, and to recitation rooms. The attic story with a floor surface of some six thousand square feet is used for draughting rooms. The other four stories contain one hundred and twelve rooms for students.

IV. THE BUCKNELL HALL.

Bucknell Hall is the Chapel of the College. In it all the students of the College meet daily for worship.

V. THE CARNEGIE LIBRARY BUILDING.

The library building was given by the Honorable Andrew Carnegie, D.C.L., in the year 1905.

The building is sixty-four feet by ninety, built of pressed brick, and trimmed with brownstone. The center, thirty feet by ninety, is used as a reading room. At the height of sixteen feet there is a gallery extending around the room. The sides, each fifteen feet by ninety, are divided on the first floor into rooms for special collections and for offices. The second and third floors will be used for stack rooms. The building will accommodate about one hundred and fifty thousand volumes.

VI. THE OBSERVATORY.

The Observatory was erected in 1887 and enlarged in 1905. It is designed for the use of students in Practical Astronomy.

The equipment represents the latest improvements in astronomical instruments. It consists of a Clark Equatorial Telescope of ten inches aperture and twelve and one half feet focal length, furnished with a fine position Micrometer and all the usual accessories; a Spectroscope with prism and grating by Brashear; a three-inch prismatic Transit, with a thirteen-wire movable Micrometer; a Fauth Chronograph with Bond Spring Governor; a Waldo Precision Clock for sidereal time, with mercurial compensation, break circuiting apparatus; Daniell's battery and telegraph sounders; a Seth Thomas Clock for solar time; a Sextant; a three-inch Altitude Azimuth Refractor; a set of Meteorological instruments; Celestial globes and maps, and standard works on Theoretical and Practical Astronomy.

VII. THE CHEMICAL LABORATORY.

The Laboratory was erected in 1890, and is a building forty-three feet in width and eighty-six feet in length, with two stories above the basement. In the first story, which has a clear height of fifteen feet, are a lecture room, with seating for one hundred and twenty-five students, and a large working room, in which are tables for individual work in Chemical Analysis; the second floor contains a lecture room and rooms for laboratory work in Organic Science; the basement has rooms for Applied Chemistry, and a fire-proof room. The attic contains a room for dissection in Human Anatomy.

VIII. THE PHYSICAL LABORATORY.

The Physical Laboratory was erected in 1902. It is a building of two stories, fifty by sixty, constructed of brick

trimmed with brownstone. The basement serves for the heating and lighting plant of the institution; the main story, with one room twenty by fifty and another forty by forty-five, is used for shop work.

IX. THE TUSTIN GYMNASIUM.

The basement of the Gymnasium is built of stone, and contains an office for the director, rooms for students, lockers, dressing rooms, and shower baths. The second story is built of brick, rising twenty-two feet from the main floor to the square, and is open to the roof. At the height of twelve feet a running-track gallery, six feet wide, surrounds the room.

X. THE ATHLETIC FIELD.

The field is conveniently located at the foot of "College Hill," and has been graded and fitted up for outdoor sports. In the northwest corner, at the main entrance to the College grounds, a shaded section has been set aside for tennis. The athletic field is sufficiently large for football, baseball, and lacrosse. A running track, a quarter-mile in length, has been constructed on the eastern part of the campus. The Tustin Gymnasium is located at the end of the field, so as to be near to the center of exercise, and easily accessible to the trainers and students.

XI. THE ACADEMY.

1. **The Main Building** of the Academy is situated on "College Hill," and is fifty feet in width by eighty feet in length, and three stories in height. On the first floor is a dining room, thirty feet by thirty-six feet; two recitation rooms, a reception room, and the Principal's office; on the

second floor are suites of rooms for the Principal and his family and for the Matron. The third floor is used for students' rooms, each twenty feet by twelve feet, and fourteen feet high.

2. The East Hall of the Academy is the Bucknell Cottage for young men, and is contiguous to the Main Building and connected with it by a covered passageway. It is of brick, three stories high, sixty feet in length and forty feet in width, and is finished in natural wood. The building contains a general study room, a recitation room, teachers' apartments, and rooms for students. The rooms have high ceilings, large double windows with inside shutters, and two commodious closets each.

Both buildings are supplied with hot and cold water, are warmed by steam, and lighted by electricity.

XII. BUILDINGS OF THE WOMEN'S COLLEGE.

The buildings and campus of this department are set apart for the use of women taking courses in the College, in the Institute, and in the School of Music.

1. The Main Building contains, on the first floor, an office for the Dean and the Registrar, a reception room, the office of the Director of Music, music rooms, recitation rooms, and a dining hall; on the second floor a school-room and a parlor; on the third floor, a library room, teachers' apartments, and students' rooms. The main building was enlarged, 1905, by an addition to the dining hall.

2. The South Hall, erected in 1869, is devoted to students' rooms, except the third story, which is used as a gymnasium. This gymnasium has been lately improved and equipped.

3. The Bucknell Cottage stands to the southwest of the

Main Building, and is connected with it by an enclosed passageway. It is built of brick, in the Queen Anne style of architecture, and has dimensions of forty feet by one hundred feet. The interior is finished in natural wood, and is equipped, in matters of light, heat and ventilation, with modern improvements.

The portion allotted to students' rooms affords accommodations for forty occupants. These rooms are in suites on the general plan of a center parlor, with bedrooms and closets on either side. In this building is the **Studio**, a spacious room with such adjustments for the admission of light and supply of unencumbered wall surfaces as adapt it for the execution and display of art products.

4. New Cottage for women, with a front of one hundred and twenty-eight feet and a depth of forty feet, rising three stories above the basement, was erected in 1905. It contains eighty-seven rooms.

The **Calisthenium** occupies the upper story, and has a floor surface of over four thousand feet.

All the buildings are supplied with hot and cold water, are warmed by steam, and lighted by electricity.

5. The Campus of the Women's College is separated from the main College grounds by Loomis Street.

XIII. HEATING AND LIGHTING PLANT.

A central steam heating and electric lighting plant has been erected; all the rooms, public and private, in the several buildings of the Institution, are warmed and lighted from this plant.

XIV. THE PRESIDENT'S HOUSE.

The Corporation also owns a house for the use of the President of the University.

THE COLLEGE.

THE FACULTY AND OTHER OFFICERS.

JOHN HOWARD HARRIS, PH.D., LL.D., PRESIDENT,
AND PROFESSOR OF PSYCHOLOGY AND ETHICS.

* FREEMAN LOOMIS, A.M., PH.D.,
PROFESSOR OF MODERN LANGUAGES AND LITERATURE.

WILLIAM CYRUS BARTOL, A.M., PH.D.,
PROFESSOR OF MATHEMATICS AND ASTRONOMY.

FRANK ERNEST ROCKWOOD, A.M., LL.D.,
PROFESSOR OF THE LATIN LANGUAGE AND LITERATURE AND DEAN OF
THE COLLEGE.

WILLIAM GUNDY OWENS, A.M.,
PROFESSOR OF CHEMISTRY.

ENOCH PERRINE, A.M., LITT.D.,
PROFESSOR OF THE ENGLISH LANGUAGE AND LITERATURE AND
SECRETARY OF THE FACULTY.

THOMAS FRANKLIN HAMBLIN, A.M., LL.D.,
NEW JERSEY PROFESSOR OF THE GREEK LANGUAGE AND LITERATURE.

WILLIAM EMMET MARTIN, A.M., L.H.D.,
PROFESSOR OF SOCIOLOGY AND ANTHROPOLOGY.

NELSON FITHIAN DAVIS, SC.D.,
PROFESSOR OF BIOLOGY.

* Retired.

BUCKNELL UNIVERSITY

EPHRAIM M. HEIM, PH.D.,
PROFESSOR OF ECONOMIC AND POLITICAL SCIENCE.

GUIDO CARL LEO RIEMER, A.M., PH.D.,
PROFESSOR OF MODERN LANGUAGES.

LLEWELLYN PHILLIPS, A.M., D.D.,
JOHN P. CROZER PROFESSOR OF RHETORIC AND ORATORY.

CALVIN AURAND HARE, A.M.,
PROFESSOR OF CHRISTIAN EVIDENCES AND LOGIC.

THOMAS ALPHEUS EDWARDS, A.M.,
PROFESSOR OF PEDAGOGY AND DEAN OF THE DEPARTMENT FOR WOMEN.

HENRY THOMAS COLESTOCK, A.M., PH.D.,
PROFESSOR OF HISTORY.

CHARLES ARTHUR LINDEMANN, A.M.,
PROFESSOR OF APPLIED MATHEMATICS.

FRANK MORTON SIMPSON, SC.M.,
PROFESSOR OF PHYSICS AND MECHANICAL DRAWING.

WALTER KREMER RHODES, A.M., E.E.
PROFESSOR OF ELECTRO-TECHNICS.

FLOYD GEORGE BALLENTINE, PH.D.,
ASSISTANT PROFESSOR OF LATIN.

FRANK EUGENE BURPEE, A.M.,
ASSISTANT PROFESSOR OF MATHEMATICS.

MARTIN LINNAEUS DRUM, A.M.,
ASSISTANT PROFESSOR OF MATHEMATICS.

NORMAN HAMILTON STEWART, A.B., SC.M.,
ASSISTANT PROFESSOR OF BIOLOGY.

BENJAMIN W. GRIFFITH, A.M.,
ASSISTANT PROFESSOR OF FRENCH.

WILLIAM PHILLIPS WINTER, PH.D.,
ASSISTANT PROFESSOR OF CHEMISTRY.

BROMLEY SMITH, A.M.,
INSTRUCTOR IN ORATORY AND RHETORIC.

CHARLES EVANS, A.B.,
INSTRUCTOR IN GERMAN.

CHARLES CARPENTER FRIES, A.M.,
INSTRUCTOR IN RHETORIC.

HAROLD MURRAY McCLURE, A.M.,
PRESIDENT JUDGE, SEVENTEENTH JUDICIAL DISTRICT,
LECTURER ON CONTRACTS AND PARTNERSHIPS.

ALBERT WILLIAM JOHNSON, A.M.,
ATTORNEY-AT-LAW,
LECTURER ON REAL AND PERSONAL PROPERTY.

CLOYD NILLIS STEININGER, A.M.,
ATTORNEY-AT-LAW,
LECTURER ON BILLS AND NOTES AND ON AGENCY.

WILLIAM EMMET MARTIN, A.M., L.H.D.,
LIBRARIAN.

JOSEPH MEIXELL WOLFE, A.M.,
REGISTRAR OF THE UNIVERSITY.

REV. CALVIN AURAND HARE, A.M.,
FINANCIAL SECRETARY.

FRANK EUGENE BURPEE, A.M.,
SUPERINTENDENT OF BUILDINGS AND GROUNDS.

ADMISSION OF STUDENTS.

TO FRESHMAN STANDING.

EXAMINATIONS.

Examinations for admission to the Freshman Class are held on Monday of Commencement week. Candidates will assemble in Bucknell Hall at 8.30 A.M.

Similar examinations are also held on the day preceding the opening of each year.

There must be furnished to the President by the candidate satisfactory testimonials of good moral character, and, if from another college, a certificate of honorable dismissal must be presented. But no student from another college will be admitted except at the beginning of the Academic year.

The required age for admission to the Freshman Class is fifteen years.

I. GENERAL REQUIREMENTS.

Candidates for admission to any of the courses must pass examinations in the following:

1. ENGLISH.

- a. Writing from dictation.
- b. English Grammar.
- c. Elements of Rhetoric—Invention, Style, and Punctuation.
- d. A brief composition upon a subject assigned at the time of the examination. No candidate will be accepted in English whose work is notably defective in spelling, punctuation, idiom, or division into paragraphs.

e. **Reading.**—The books set for reading are those designated by the College Association of the Middle States and Maryland. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple

questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books. In preparation for this part of the requirement, it is important that the candidate shall have been instructed in the fundamental principles of Rhetoric.

f. Study and Practice.—This part of the examination presupposes the thorough study of each of the works named by the College Association. The examination will be upon subject-matter, form, and structure.

The candidate is advised to do reading parallel and subsidiary to these books; he is recommended to commit to memory as much English poetry as possible, and to pay close attention to the essentials of Grammar.

2. MATHEMATICS.

a. Arithmetic, including the Metric System;

b. Algebra, including Quadratic Equations. The requirements in this study include the treatment of Radicals.

c. Plane Geometry.

3. LATIN.

a. Latin Grammar;

b. Latin Prose Composition;

c. Four book of Cæsar's Commentaries.

4. HISTORY.

a. History of Greece;

b. History of Rome;

c. History of the United States.

5. SCIENCE.

a. Physiology;

b. Physics;

c. Geography—Descriptive and Political, and Physical.

6. FREE-HAND DRAWING.

II. PARTICULAR REQUIREMENTS.

A. To enter the Classical Course, the candidate, in addition to the General Requirements, must pass examinations in the following:

1. GREEK.

- a.* Greek Grammar;
- b.* Greek Prose Composition;
- c.* Greek Reader;
- d.* Four Books of Xenophon's *Anabasis*;
- e.* Three Books of Homer's *Iliad*.

2. LATIN.

- a.* Seven Orations of Cicero;
- b.* Six Books of the *Æneid*;
- c.* Ovid, 1200 lines.

B. To enter the Latin division of the Philosophical Course, or the Course in Jurisprudence, the candidate, in addition to the General Requirements, must pass examination in the following:

1. LATIN.

- a.* Seven Orations of Cicero;
- b.* Six Books of the *Æneid*;
- c.* Ovid, 1200 lines.

2. SOLID GEOMETRY.

3. Any five units selected from group E.

2. To enter the Greek division of the Philosophical Course, the candidate, in addition to the General Requirements, must pass examination in the following:

1. GREEK.

- a.* Greek Grammar;
- b.* Greek Prose Composition;
- c.* Greek Reader;
- d.* Four Books of Xenophon's *Anabasis*;
- e.* Three Books of Homer's *Iliad*.

2. SOLID GEOMETRY.

3. Any five units selected from group E.

D. To enter the General Science Course, the Course in Biology, the Course in Chemistry, or the Course in Civil, in Mechanical or in Electrical Engineering, the candidate, in addition to the General Requirements, must pass examination in the following:

1. GERMAN OR FRENCH.

The Grammar of the Language, Composition, and Translation at sight of easy prose (three units).

2. SOLID GEOMETRY.

3. Any eight units selected from group E.

E. Candidates for admission to the Philosophical Course or to the Scientific Course must present in the case of the former, five units, in case of the latter, eight units, selected from the following:

English Literature, History of Modern Europe, History of England, Civics, Zoölogy, Physiography, Botany, Geology, Astronomy; Solid Geometry, Chemistry with Laboratory Practice; French (three units); German (three units).

The time requirements for a unit is five hours a week for a term of twelve weeks.

The requirements for admission to the various Courses amount to the work of a High School with a four years' course.

ADMISSION ON CERTIFICATE.

Graduates of Bucknell Institute, in any of the Courses, will be admitted to the Sophomore year of the corresponding Course in the College.

Graduates from Bucknell Academy, in any of the Courses, will be admitted to the corresponding Course in the College upon the Diploma of the Academy.

Graduates of Pennsylvania State Normal Schools are admitted to the General Science Course without examination.

Certificates of the College Entrance Examination Board are accepted for admission, and also certificates of the State Board for Examination of Candidates for registration as Students of Law, and Regents' certificates of New York State.

Students who have graduated in a four years' Course of study in **Preparatory and High Schools** of superior standing may be admitted upon the certificate of the Principal of the school from which they come without examination upon the subjects specified in the certificate.

All students received upon certificate are regarded as in conditional standing, and will not be matriculated unless their work during the first ten weeks of the term shows that their preparation has been sufficiently thorough.

SPECIAL STUDENTS.

Students who do not desire to take a full regular course can enter and select special shorter courses with the sanction of the Faculty; but in all cases, satisfactory examination must be passed upon the subjects required for admission to the Freshman Class of the Course from which they intend to select.

ADVANCED STANDING.

I. General Requirements. A proportionate increase of age is required for admission to advanced classes over that required for admission to Freshman standing. Other general requirements are the same as for admission to the Freshman Class.

II. Particular Requirements. Candidates for admission to advanced classes are examined both as for admission to Freshman standing and also on the studies that have been pursued by the class which they desire to enter.

MATRICULATION.

Matriculation gives membership in the College and is a condition precedent to all degrees and honors as well as to honorable dismissal. No student is admitted to matriculation until he has shown by his class work during at least ten weeks and by his deportment that he is worthy of membership in the College.

HONORABLE DISMISSION.

No person will be dismissed from the College as in good standing who leaves it while under censure; and papers of dismissal given to those leaving while under a condition shall distinctly mention the condition; nor will honorable dismissal be granted to

any student who has not discharged all his pecuniary obligations to the Institution. No papers of dismissal or of grades will be granted to a student who has not completed one year of work; nor are credits certified except for work done in class in this College. All certificates of dismissal are signed by the President of the University and sealed with the corporate seal, and no others are valid.

No certificate or statement as to work done in his department is granted by any professor or instructor to an undergraduate.

COURSES OF STUDY.

The Bucknell College offers nine courses of study leading to degrees in Arts, Philosophy, and Sciences. Each of the Courses extends through four years. For the Bachelor's degree, thirty-six courses, each of one term five hours a week, must be presented, as well as the prescribed work in oral and written Expression, the former of which extends through two years of the course and the latter through four years, and also twelve lecture courses.

I. The Classical Course, leading to the degree of Bachelor of Arts, aims to furnish a liberal education in classical and modern Literature, in the Sciences and Arts. Candidates for the degree of Bachelor of Arts must present at least three courses in German or French.

II. The Philosophical Course, with Latin or Greek in each of its two divisions, aims to furnish a thorough training in advanced studies to those who desire to pursue but one of the Ancient Languages. Those who have completed the studies of the Course, including not less than four courses of German and French, are admitted to the degree of Bachelor of Philosophy. But a candidate in the Philosophical Course who offers nine College courses in either of the Ancient Classical languages or nine College courses in a Modern language in addition to the required work in Latin or Greek may receive the degree of Bachelor of Arts.

III. The Course in Jurisprudence, leading to the degree of Bachelor of Arts, covers four years of work in Law, Political Science, Economics, Philosophy, History, Literature, and Mathematics. The course in Jurisprudence is designed for persons

preparing for the legal profession, for a business career, and for participation in public affairs. No one is graduated from this Course if his average standing for the Course is below nine.

IV. The General Science Course, leading to the degree of Bachelor of Science, is substantially the same as the Philosophical Course, with the substitution of additional Modern Language and Scientific Studies for Latin and Greek. Candidates for the degree of Bachelor of Science must present at least one year of German or French for admission and at least four courses of college work in German or French as requisites for graduation.

V. The Course in Biology, leading to the first degree in Biological Science, covers four years of work in Biology, Chemistry, Physics, Mathematics, and Literature. No one is admitted to the first degree in Biological Science if his average standing for the Course is below nine.

VI. The Course in Chemistry, leading to the first degree in Chemical Engineering, covers four years of work in Chemistry, Physics, Mathematics, Biology, and Literature. No one is admitted to the first degree in Chemical Science if his average standing for the Course is below nine.

The requirements in Modern Language are the same for the Course in Jurisprudence as for the Philosophical Course; and for the Course in Biology and for that in Chemistry they are the same as for the Course in General Science.

VII. The Course in Civil Engineering, leading to the first degree in Civil Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Technology, and Language. No one is admitted to the first degree in Civil Engineering if his average standing for the Course is below nine.

VIII. The Course in Electrical Engineering, leading to the first degree in Electrical Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Physics, Electro-technics, and Language. No one will be admitted to the first degree in Electrical Engineering if his average standing for the Course is below nine.

IX. The Course in Mechanical Engineering, leading to the first degree in Mechanical Engineering, covers four years of work in Pure and Applied Mathematics, Chemistry, Physics, Electro-technics, Steam Engineering, Shop-work, and Language. No one will be admitted to the first degree in Mechanical Engineering if his average standing for the Course is below nine.

X. Advanced Courses in Arts, in Science, and in Engineering have been established, leading to the degrees respectively of Master of Arts, Master of Science, Master of Pedagogy, Civil Engineer, Electrical Engineer, and Mechanical Engineer.

The Master's degree is conferred only on condition that the candidate has completed a Course of Liberal study, approved by the Faculty, sufficient in amount to constitute a fifth year of college work, two thirds of which must be in one department. Particulars may be learned by addressing the President.

CURRICULA.

Roman numerals indicate the number of class-exercises required each week; when there is no designation, five is understood.

I. THE CLASSICAL COURSE.

Leading to the Degree of Bachelor of Arts.

FRESHMAN YEAR.

- | | |
|--|-----------------------------|
| I. TERM—Solid Geometry,
Cicero de Senectute and Livy,
{ Odyssey,
{ Greek Prose Composition, | Rhetoric, I,
Oratory, I. |
| II. TERM—Higher Algebra.
Livy,
{ Lysias' Orations,
{ Greek Testament, | Rhetoric, I,
Oratory, I. |
| III. TERM—Trigonometry,
Velleius and Pliny,
{ Plato's Apology,
{ Greek Testament, | Rhetoric, I,
Oratory, I. |

SOPHOMORE YEAR.

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|------------------------------|------------------------------|
| I. TERM—Rhetoric,
Horace, | Astronomy, I,
Oratory, I. |
|------------------------------|------------------------------|

ELECTIVE STUDIES:

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|--------------------------------------|--|
| German,
French,
Greek History, | American History, a,
Chemistry,
Surveying, |
| <i>Analytical Geometry.</i> | |

II. TERM—English Literature,
Demosthenes,

Astronomy, I,
Oratory, I.

ELECTIVE STUDIES:

Roman History,
American History, b,
Latin, 6,
German,
French,

Logic,
Chemistry,
Differential Calculus,
Advanced Algebra,
Physiology.

III. TERM—Civics, or Economic History, History of Art, I.

ELECTIVE STUDIES:

Public Address,
Argumentation,
Juvenal,
German,
French,

Anthropology,
Botany,
Chemistry,
Integral Calculus,
Elements of Law.

JUNIOR YEAR.

I. TERM—Psychology,
Thesis,

Sanitary Science, I.

ELECTIVE STUDIES:

Æschylus and Sophocles,
Latin, 8,
English, 6 or 7,
German,
French,
History, Oriental,
Economics,

Geology.

Real Property,
Sociology,
Physiological Psychology,
Biology,
Embryology,
Chemistry,
Mechanics,

II. TERM—Ethics, IV,
Thesis,

Sanitary Science, I.

ELECTIVE STUDIES:

<i>Euripides,</i>	<i>Advanced Logic,</i>
<i>Latin Poets,</i>	<i>Advanced Composition,</i>
<i>English, 8,</i>	<i>Comparative Psychology,</i>
<i>German,</i>	<i>Zoölogy of Invertebrates,</i>
<i>French,</i>	<i>Animal Histology, a,</i>
<i>English Bible,</i>	<i>Human Anatomy, a,</i>
<i>History, English, a,</i>	<i>Chemistry,</i>
<i>Municipal Sociology,</i>	<i>Higher Analytics,</i>
<i>Money and Banking,</i>	<i>Mathematics, 9,</i>
<i>Personal Property,</i>	<i>Physics,</i>
<i>Municipal Government.</i>	

III. TERM—Theism, III,	History of Education, I,
History of Philosophy, II,	Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Latin, 10,</i>	<i>Cryptogamic Botany,</i>
<i>Journalism,</i>	<i>Bacteriology,</i>
<i>German,</i>	<i>Entomology,</i>
<i>French,</i>	<i>Histology, b,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Constitutional Law,</i>	<i>Physics.</i>

SENIOR YEAR.

I. TERM—Social Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Greek, 15,</i>	<i>School Administration,</i>
<i>Greek Testament,</i>	<i>International Law,</i>
<i>Latin, 11,</i>	<i>Comparative Anatomy,</i>
<i>Anglo-Saxon,</i>	<i>Chemistry,</i>
<i>English, 4 or 9,</i>	<i>Geology,</i>
<i>German,</i>	<i>Geodetic Astronomy,</i>
<i>French,</i>	<i>Contracts,</i>
<i>Medieval History,</i>	<i>Advanced Ethics.</i>

II. TERM—Political Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Demosthenes de Corona,</i>	<i>Agency,</i>
<i>Greek Testament,</i>	<i>Philosophy of Mind,</i>
<i>Latin, 12,</i>	<i>History, 11,</i>
<i>Roman Life,</i>	<i>History of Europe, a,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Public Finance,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Psychology of Education,</i>	<i>Economic Geology,</i>
<i>Human Anatomy, b.</i>	

III. TERM—Literature, I.

ELECTIVE STUDIES:

<i>Plato, Phaedo,</i>	<i>Philosophy of Education,</i>
<i>Greek Testament,</i>	<i>History of Europe, b,</i>
<i>Latin, 13,</i>	<i>Private Corporations,</i>
<i>German,</i>	<i>Roman Law,</i>
<i>French,</i>	<i>Partnership,</i>
<i>Shakspeare,</i>	<i>Chemistry,</i>
<i>History of Philosophy,</i>	<i>Forestry.</i>
<i>Railroad Transportation.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

II. THE PHILOSOPHICAL COURSE.

Leading to the Degree of Bachelor of Philosophy.

A. LATIN DIVISION.

FRESHMAN YEAR.

I. TERM—Higher Algebra,	Rhetoric, I,
Cicero de Senectute and Livy,	Oratory, I.
<i>German or French,</i>	
II. TERM—Trigonometry,	Rhetoric, I,
Livy,	Oratory, I.
<i>German or French,</i>	

- III. TERM—Analytical Geometry, Rhetoric, I,
 Velleius and Pliny, Oratory, I.
German or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Astronomy, I,
 Horace, Oratory, I.

ELECTIVE STUDIES:

<i>German,</i>	<i>American History, a,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Greek History,</i>	<i>Surveying.</i>

- II. TERM—English Literature, Oratory, I,
 Astronomy, I.

ELECTIVE STUDIES:

<i>Roman History,</i>	<i>Physiology,</i>
<i>American History, b,</i>	<i>Chemistry,</i>
<i>Latin, 6,</i>	<i>Differential Calculus,</i>
<i>German,</i>	<i>Advanced Algebra,</i>
<i>French,</i>	<i>Logic.</i>

- III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

<i>Argumentation,</i>	<i>Anthropology,</i>
<i>Public Address,</i>	<i>Elementary Law,</i>
<i>Juvenal,</i>	<i>Botany,</i>
<i>German,</i>	<i>Chemistry,</i>
<i>French,</i>	<i>Integral Calculus.</i>

JUNIOR YEAR.

- I. TERM—Psychology, Sanitary Science, I.
 Thesis,

ELECTIVE STUDIES:

<i>Latin, 8,</i>	<i>Sociology,</i>
<i>German,</i>	<i>Economics,</i>
<i>French,</i>	<i>Physiological Psychology,</i>
<i>English, 6 or 7,</i>	<i>Biology,</i>
<i>History, Oriental,</i>	<i>Embryology,</i>
<i>Real Property,</i>	<i>Chemistry,</i>
	<i>Mechanics.</i>

II. TERM—Ethics,
Thesis,

Sanitary Science, I.

ELECTIVE STUDIES:

<i>Latin, 9,</i>	<i>Advanced Composition,</i>
<i>English, 8,</i>	<i>Comparative Psychology,</i>
<i>German,</i>	<i>Zoölogy of Invertebrates,</i>
<i>French,</i>	<i>Animal Histology, a,</i>
<i>English Bible,</i>	<i>Human Anatomy, a,</i>
<i>History, English, a,</i>	<i>Chemistry,</i>
<i>Municipal Sociology,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Higher Analytics,</i>
<i>Municipal Government,</i>	<i>Physics,</i>
<i>Advanced Logic,</i>	<i>Personal Property.</i>

III. TERM—Theism, III,
History of Philosophy, II,

History of Education, I,
Thesis.

ELECTIVE STUDIES:

<i>Latin, 10,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Journalism,</i>	<i>Entomology,</i>
<i>German,</i>	<i>Bacteriology,</i>
<i>French,</i>	<i>Histology, b,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Cryptogamic Botany,</i>	<i>Physics,</i>
<i>Constitutional Law.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 11,</i>	<i>School Administration,</i>
<i>German,</i>	<i>International Law,</i>
<i>French,</i>	<i>Contracts,</i>
<i>Anglo-Saxon,</i>	<i>Comparative Anatomy,</i>
<i>English, 4 or 9,</i>	<i>Chemistry,</i>
<i>Medieval History,</i>	<i>Geology,</i>
<i>Advanced Ethics,</i>	<i>Geodetic Astronomy.</i>

II. TERM—Political Ethics, I,

Thesis.

ELECTIVE STUDIES:

<i>Latin, 12,</i>	<i>Roman Private Life,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Public Finance,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Philosophy of Mind,</i>	<i>Economic Geology,</i>
<i>History of Europe, a,</i>	<i>Human Anatomy, b,</i>
<i>. Psychology of Education,</i>	<i>Agency.</i>

III. TERM—Literature, I.

ELECTIVE STUDIES:

<i>Latin, 13,</i>	<i>Comparative Politics,</i>
<i>German,</i>	<i>Philosophy of Education,</i>
<i>French,</i>	<i>Roman Law,</i>
<i>Shakspeare,</i>	<i>Private Corporations,</i>
<i>History of Philosophy,</i>	<i>Chemistry,</i>
<i>History of Europe, b,</i>	<i>Forestry,</i>
<i>Partnership,</i>	<i>Railroad Transportation.</i>

Seniors may take any of the Electives of the Junior Year for corresponding terms.

THE PHILOSOPHICAL COURSE.

B. GREEK DIVISION.

FRESHMAN YEAR.

I. TERM—Higher Algebra,	Rhetoric, I,
Odyssey,	Oratory, I.
<i>German or French,</i>	
II. TERM—Trigonometry,	Rhetoric, I,
{ Lysias' Orations,	Oratory, I.
{ Greek Testament,	
<i>German or French,</i>	

- III. TERM—Analytical Geometry, Rhetoric, I,
 { Plato's Apology, Oratory, I.
 { Greek Testament,
 German or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Astronomy, I,
 Greek History, Oratory, I.

ELECTIVE STUDIES:

American History, a, French,
German, Chemistry,
Surveying.

- II. TERM—English Literature, Astronomy, I,
 Demosthenes, Oratory, I.

ELECTIVE STUDIES:

German, Logic,
French, Physiology,
Roman History, Chemistry,
American History, b, Differential Calculus,
Advanced Algebra.

- III. TERM—Civics or Economic History, History of Art, I.

ELECTIVE STUDIES:

Argumentation, Elements of Law,
Public Address, Botany,
German, Anthropology,
French, Chemistry,
Integral Calculus.

JUNIOR YEAR.

- I. TERM—Psychology, Sanitary Science, I.
 Thesis,

ELECTIVE STUDIES:

<i>Æschylus and Sophocles,</i>	<i>Sociology,</i>
<i>German,</i>	<i>Economics,</i>
<i>French,</i>	<i>Physiological Psychology,</i>
<i>English, 6 or 7,</i>	<i>Biology,</i>
<i>History, Oriental,</i>	<i>Embryology,</i>
<i>Real Property,</i>	<i>Chemistry,</i>
<i>Mechanics.</i>	

II. TERM—Ethics,
Thesis,

Sanitary Science, I.

ELECTIVE STUDIES:

<i>Euripides,</i>	<i>Comparative Psychology,</i>
<i>German,</i>	<i>Zoölogy of Invertebrates,</i>
<i>French,</i>	<i>Animal Histology, a,</i>
<i>English, 8,</i>	<i>Human Anatomy, a,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>History, English,</i>	<i>Mathematics, 9,</i>
<i>Money and Banking,</i>	<i>Physics,</i>
<i>Municipal Government,</i>	<i>Higher Analytics,</i>
<i>Advanced Logic,</i>	<i>Personal Property,</i>
<i>Advanced Composition,</i>	<i>Municipal Sociology.</i>

III. TERM—Theism, III,
History of Philosophy, II,

History of Education, I,
Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Entomology,</i>
<i>Journalism,</i>	<i>Cryptogamic Botany,</i>
<i>German,</i>	<i>Bacteriology,</i>
<i>French,</i>	<i>Histology, 6,</i>
<i>English Bible,</i>	<i>Chemistry,</i>
<i>Bills and Notes,</i>	<i>Astronomy,</i>
<i>Zoölogy of Vertebrates,</i>	<i>Physics,</i>
<i>Constitutional Law.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,

Thesis.

ELECTIVE STUDIES:

Greek, 15,
Greek Testament,
Anglo-Saxon,
English, 4 or 9,
German,
French,
Medieval History,

Advanced Ethics,
School Administration,
International Law,
Comparative Anatomy,
Chemistry,
Geology,
Contracts.

II. TERM—Political Ethics, I,

Thesis.

ELECTIVE STUDIES:

Demosthenes de Corona,
Greek Testament,
Chaucer,
German,
French,
Philosophy of Mind,
History of Europe, a,

Agency,
Psychology of Education,
Roman Life,
Comparative Politics,
Public Finance,
Chemistry,
Economic Geology,

Human Anatomy, b.

III. TERM—Literature, I,

ELECTIVE STUDIES:

Plato, *Phaedo*,
Greek Testament,
German,
French,
Shakspeare,
History of Philosophy,
Railroad Transportation,

Philosophy of Education,
Partnership,
History of Europe, b,
Roman Law,
Private Corporations,
Chemistry,
Forestry.

Seniors may take any of the Electives of the Junior Year for corresponding terms.

III. THE COURSE IN JURISPRUDENCE.

Leading to the Degree of Bachelor of Arts.

FRESHMAN YEAR.

- I. TERM—Higher Algebra, Rhetoric, I,
 Cicero de Senectute and Livy, Oratory, I.
 { Odyssey,
 { Greek Prose Composition,
 or German,
 or French,
- II. TERM—Trigonometry, Rhetoric, I,
 Livy, Oratory, I.
 { Lysias' Orations,
 { Greek Testament,
 or German, or French,
- III. TERM—Analytical Geometry, Rhetoric, I,
 Velleius and Pliny, Oratory, I.
 { Plato's Apology,
 { Greek Testament,
 or German,
 or French,

SOPHOMORE YEAR.

- I. TERM—Rhetoric, Political Science, I,
 Horace, Oratory, I.

ELECTIVE STUDIES:

- Greek History,* *French,*
American History, a, *Surveying,*
German, *Chemistry.*
- II. TERM—English Literature, Political Science, I,
 Logic, Oratory, I.

ELECTIVE STUDIES:

<i>Demosthenes,</i>	<i>American History, b,</i>
<i>Quintilian,</i>	<i>German,</i>
<i>Roman History,</i>	<i>French.</i>

- III. TERM—Elements of Law, Political Science, I,
American Constitutional Law.

ELECTIVE STUDIES:

<i>Juvenal,</i>	<i>American Literature,</i>
<i>German,</i>	<i>Argumentation,</i>
<i>French,</i>	<i>Public Address,</i>
<i>Economic History.</i>	

JUNIOR YEAR.

- I. TERM—Psychology, Blackstone, I.
Economics, Thesis.

ELECTIVE STUDIES:

<i>Real Property, Blackstone B.II,</i>	<i>Latin, 8,</i>
<i>Constitutional Limitations,</i>	<i>Greek Tragedy,</i>
<i>English History,</i>	<i>English Literature,</i>
<i>Sociology,</i>	<i>Modern Language.</i>

- II. TERM—Ethics, Blackstone, I.
Money and Banking, Thesis.

ELECTIVE STUDIES:

<i>Personal Property,</i>	<i>English Bible,</i>
<i>Municipal Government,</i>	<i>Greek,</i>
<i>History,</i>	<i>Latin, 9,</i>
<i>Logic, Course 2,</i>	<i>English Literature,</i>
<i>Advanced Composition,</i>	<i>Modern Language.</i>

- III. TERM—Theism, Blackstone, I.
Private Corporations, Thesis.

ELECTIVE STUDIES:

<i>Bills and Notes,</i>	<i>Greek,</i>
<i>English Bible,</i>	<i>Latin, 10,</i>
<i>History,</i>	<i>Modern Language.</i>

SENIOR YEAR.

- I. TERM—International Law, Social Ethics, I.
Thesis,

ELECTIVE STUDIES:

<i>Contracts,</i>	<i>Latin, 11,</i>
<i>Medieval History,</i>	<i>Modern Language,</i>
<i>Anglo-Saxon,</i>	<i>Advanced Ethics.</i>
<i>English Literature.</i>	

- II. TERM—Comparative Politics, Political Ethics, I.
Thesis,

ELECTIVE STUDIES:

<i>Agency,</i>	<i>Demosthenes de Corona,</i>
<i>Public Finance,</i>	<i>Latin, 12,</i>
<i>Modern Europe, a,</i>	<i>Chaucer,</i>
<i>Philosophy of Mind,</i>	<i>Modern Language.</i>

- ### III. TERM—Roman Law,

ELECTIVE STUDIES:

<i>Partnership,</i>	<i>Shakspere,</i>
<i>Railroad Transportation,</i>	<i>Plato's Phædo,</i>
<i>Modern Europe, b,</i>	<i>Latin, 13,</i>
<i>History, 9,</i>	<i>Modern Language,</i>
<i>History of Philosophy.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

IV. THE GENERAL SCIENCE COURSE.

Leading to the Degree of Bachelor of Science.

FRESHMAN YEAR.

- I. TERM—Higher Algebra, Rhetoric, I,
Latin, Oratory, I.
German, 2, or French,

II. TERM—Trigonometry,	Rhetoric, I,
Latin,	Oratory, I.
German, 3 or French,	

III. TERM—Analytical Geometry,	Rhetoric, I,
German, 4, or French,	Oratory, I.
Latin,	

SOPHOMORE YEAR.

I. TERM—Rhetoric,	Astronomy, I,
Oratory, I.	

ELECTIVE STUDIES:

<i>Chemistry,</i>	<i>Greek History,</i>
<i>Horace,</i>	<i>American History, a,</i>
<i>German,</i>	<i>Surveying,</i>
<i>French.</i>	

II. TERM—English Literature,	Astronomy, I,
Oratory, I.	

ELECTIVE STUDIES:

<i>German,</i>	<i>Logic,</i>
<i>French,</i>	<i>Physiology,</i>
<i>Roman History,</i>	<i>Chemistry,</i>
<i>American History, b,</i>	<i>Differential Calculus,</i>
<i>Advanced Algebra.</i>	

III. TERM—Civics or Economic History,	History of Art, I.
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ELECTIVE STUDIES:

<i>Public Address,</i>	<i>Elements of Law,</i>
<i>Argumentation,</i>	<i>Anthropology,</i>
<i>Juvenal,</i>	<i>Botany,</i>
<i>German,</i>	<i>Integral Calculus,</i>
<i>French,</i>	<i>Chemistry.</i>

JUNIOR YEAR.

I. TERM—Psychology,	Sanitary Science, I.
Thesis,	

ELECTIVE STUDIES:

<i>English, 6 or 7,</i>	<i>Economics,</i>
<i>German,</i>	<i>Physiological Psychology,</i>
<i>French,</i>	<i>Biology,</i>
<i>History, Oriental,</i>	<i>Embryology,</i>
<i>Sociology,</i>	<i>Chemistry,</i>
<i>Real Property,</i>	<i>Mechanics.</i>

II. TERM—Ethics,	Sanitary Science, I.
Thesis,	

ELECTIVE STUDIES:

<i>English, 8,</i>	<i>Advanced Composition,</i>
<i>German,</i>	<i>Comparative Psychology,</i>
<i>French,</i>	<i>Zoölogy of Invertebrates,</i>
<i>English Bible,</i>	<i>Animal Histology, a,</i>
<i>History, English,</i>	<i>Human Anatomy, a,</i>
<i>Money and Banking,</i>	<i>Chemistry,</i>
<i>Municipal Government,</i>	<i>Mathematics, 9,</i>
<i>Municipal Sociology,</i>	<i>Higher Analytics,</i>
<i>Personal Property,</i>	<i>Physics.</i>

III. TERM—Theism, III,	History of Education, I,
History of Philosophy, II,	Thesis.

ELECTIVE STUDIES:

<i>Greek, 8,</i>	<i>Zoölogy of Vertebrates,</i>
<i>Journalism,</i>	<i>Bacteriology,</i>
<i>German,</i>	<i>Entomology,</i>
<i>French,</i>	<i>Histology, b,</i>
<i>English Bible,</i>	<i>Astronomy,</i>
<i>Bills and Notes,</i>	<i>Physics,</i>
<i>Cryptogamic Botany,</i>	<i>Chemistry,</i>
<i>Constitutional Law.</i>	

SENIOR YEAR.

I. TERM—Social Ethics, I,	Thesis.
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ELECTIVE STUDIES:

<i>Anglo-Saxon,</i>	<i>Advanced Ethics,</i>
<i>English, 4 or 9,</i>	<i>International Law,</i>
<i>German,</i>	<i>Comparative Anatomy,</i>
<i>French,</i>	<i>Chemistry,</i>
<i>Medieval History,</i>	<i>Geology,</i>
<i>Contracts,</i>	<i>Geodetic Astronomy,</i>
<i>School Administration.</i>	

II. TERM—Political Ethics, I, Thesis.

ELECTIVE STUDIES:

<i>German,</i>	<i>Psychology of Education,</i>
<i>French,</i>	<i>Roman Life,</i>
<i>Chaucer,</i>	<i>Comparative Politics,</i>
<i>Philosophy of Mind,</i>	<i>Public Finance,</i>
<i>Modern Europe, a,</i>	<i>Chemistry,</i>
<i>History, 11,</i>	<i>Economic Geology.</i>

III. TERM—Literature, I,

ELECTIVE STUDIES:

<i>German,</i>	<i>Philosophy of Education,</i>
<i>French,</i>	<i>Partnership,</i>
<i>Shakspeare,</i>	<i>Roman Law,</i>
<i>History of Philosophy,</i>	<i>Private Corporations,</i>
<i>Modern Europe, b,</i>	<i>Chemistry,</i>
<i>Railroad Transportation,</i>	<i>Forestry.</i>

Seniors may take any of the Electives of the Junior Year for corresponding terms.

V. THE COURSE IN BIOLOGY.

Leading to the First Degree in Biological Science.

FRESHMAN YEAR.

I. TERM—Algebra,	Rhetoric, I,
General Chemistry,	Oratory, I.
Latin, or German, 2,	
or French,	

II. TERM—Trigonometry,	Rhetoric, I,
General Chemistry,	Oratory, I.
<i>Latin</i> or <i>German</i> , 3,	
or <i>French</i> ,	

III. TERM—Analytical Geometry,	Rhetoric, I,
Qualitative Chemistry,	Oratory, I.
<i>Latin</i> or <i>German</i> , 4, or <i>French</i> ,	

SOPHOMORE YEAR.

I. TERM—Rhetoric,	Drawing, I,
Biology,	Scientific German, II.
Quantitative Chemistry,	

II. TERM—Invertebrate Zoölogy,	Drawing, I,
Physiology,	Scientific German, II.

ELECTIVE STUDIES:

<i>History,</i>	<i>English Literature,</i>
<i>Modern Language,</i>	<i>Chemistry,</i>
<i>Differential Calculus.</i>	

III. TERM—Vertebrate Zoölogy,	Drawing, I,
Botany,	Scientific German, II.

ELECTIVE STUDIES:

<i>Chemistry,</i>	<i>Civics,</i>
<i>Anthropology,</i>	<i>English Literature,</i>
<i>Integral Calculus,</i>	<i>Modern Language.</i>

JUNIOR YEAR.

I. TERM—Psychology,	German Biology, I,
Mechanics,	Thesis.
<i>Physiological Psychology.</i>	
<i>Toxicology,</i>	

II. TERM—Comparative Psychology,	German Biology, I,
Physics,	Thesis.

ELECTIVE STUDIES:

<i>History,</i>	<i>Literature,</i>
<i>Ethics,</i>	<i>Modern Language,</i>
<i>Metallurgy,</i>	<i>Human Anatomy, a.</i>

III. TERM—Entomology,	German Biology, I,
Physics,	Thesis.

ELECTIVE STUDIES:

<i>Astronomy,</i>	<i>English Literature,</i>
<i>Theism,</i>	<i>Modern Language,</i>
<i>Neurology.</i>	

SENIOR YEAR.

I. TERM—Comparative Anatomy,	Social Ethics, I,
Embryology,	Thesis.

ELECTIVE STUDIES:

<i>Geology,</i>	<i>Modern Language,</i>
<i>Economics,</i>	<i>Chemistry,</i>
<i>History.</i>	

II. TERM—Histology,	Political Ethics, I.
Thesis,	

ELECTIVE STUDIES:

<i>Human Anatomy, b,</i>	<i>History,</i>
<i>Economic Geology,</i>	<i>English Bible,</i>
<i>Money and Banking,</i>	<i>Modern Language,</i>
<i>Chemistry.</i>	

III. TERM—Neurology,	Forestry, I.
Bacteriology,	

ELECTIVE STUDIES:

<i>Chemistry,</i>	<i>Literature,</i>
<i>Railroad Transportation,</i>	<i>English Bible,</i>
<i>Forestry,</i>	<i>Modern Language,</i>
<i>History.</i>	

Seniors may take any of the Electives of the Junior Year for corresponding terms.

VI. THE COURSE IN CHEMICAL ENGINEERING.

Leading to the First Degree in Chemical Engineering.

FRESHMAN YEAR.

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| I. TERM—Chemistry,
Higher Algebra,
<i>Latin, German, 2, or French,</i> | Rhetoric, I,
Oratory, I. |
| II. TERM—Chemistry,
Trigonometry,
<i>Latin, German, 3, or French,</i> | Rhetoric, I,
Oratory, I. |
| III. TERM—Chemistry,
Analytical Geometry,
<i>Latin, German, 4, or French,</i> | Rhetoric, I,
Shopwork, IV. |

SOPHOMORE YEAR.

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| I. TERM—Quantitative Chemistry,
Mechanics,
Rhetoric, | Drawing, I,
Shopwork, IV. |
| II. TERM—Quantitative Chemistry,
Physics,
Differential Calculus, | Drawing, I,
Shopwork, IV. |
| III. TERM—Quantitative Chemistry,
Physics,
Integral Calculus, | Drawing, I,
Shopwork, II. |

JUNIOR YEAR.

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| I. TERM—Organic Chemistry,
Electrical Measurements,
Toxicology and Food Analysis, | German Chemistry, I,
Thesis. |
| II. TERM—Organic Chemistry,
Thermo-Dynamics,
Metallurgy and Glass-blowing, | German Chemistry, I,
Thesis. |

- III. TERM—Organic Chemistry, German Chemistry, I,
 Spectrum Analysis, Thesis.
 Agricultural Chemistry, or
 Boilers and Engines,

SENIOR YEAR.

- I. TERM—Physical Chemistry, Social Ethics, I,
 Chemical Preparations, Thesis.
 Geology,
- II. TERM—Physical Chemistry, Political Ethics, I,
 Chemical Preparations, Thesis.
 Direct Current Machinery, or
 Hydraulic Motors, or
 Economic Geology,
- III. TERM—Physical Chemistry, Contracts, I.
 Chemical Preparations,
 Alternating Current Machinery,
 or Water Supply and Sani-
 tary Engineering,

Seniors may take any of the Electives of the Junior Year for corresponding terms.

VII. THE COURSE IN CIVIL ENGINEERING.

Leading to the First Degree in Civil Engineering.

FRESHMAN YEAR.

- I. TERM—Higher Algebra, Rhetoric, I,
 Drawing, Oratory, I.
 German, 2, or French,
- II. TERM—Trigonometry, Rhetoric, I,
 Drawing, Oratory, I.
 German, 3, or French,

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| III. TERM—Analytical Geometry,
Drawing,
German, 4, or French, | Rhetoric, I,
Shopwork, IV. |
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SOPHOMORE YEAR.

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| I. TERM—Rhetoric,
Surveying,
Chemistry, | Geodesy, I,
Shopwork, IV. |
| II. TERM—Differential Calculus,
Descriptive Geometry,
Chemistry, | Geodesy, I,
Shopwork, IV. |
| III. TERM—Integral Calculus,
Railroad Surveying,
Chemistry, | Geodesy, I,
Shopwork, II. |

JUNIOR YEAR.

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| I. TERM—Mechanics,
Strength of Materials,
Roads and Pavements, | Architectural Design, I,
Thesis. |
| II. TERM—Physics,
Masonry,
Metallurgy, | Architectural Design, I,
Thesis. |
| III. TERM—Physics,
Boilers and Engines,
{ Water Supply,
{ Sanitary Engineering, | Forestry, I.
Thesis. |

SENIOR YEAR.

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|--|---------------------------------|
| I. TERM—Bridges and Buildings,
<i>Geodetic Astronomy</i> or
<i>Geology</i> or
<i>Advanced Mechanics</i> or
<i>Electrical Measurements,</i> | Social Ethics, I,
Thesis. |
| II. TERM—Hydraulic Motors,
Bridges and Buildings,
<i>Economic Geology</i> or
<i>Advanced Physics</i> or
<i>Direct Current Machinery,</i> | Political Ethics, I,
Thesis. |

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| III. TERM—Bridges and Buildings, | Contracts and Specifications, I, |
| { Mine Surveying, | Thesis. |
| { City Surveying, | |
| <i>Railroad Transportation or</i> | |
| <i>Advanced Physics or</i> | |
| <i>Alternating Current Machinery</i> | |
| <i>or Forestry,</i> | |
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VIII. THE COURSE IN ELECTRICAL ENGINEERING.

Leading to the First Degree in Electrical Engineering.

FRESHMAN YEAR.

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| I. TERM—Higher Algebra, | Rhetoric, I, |
| Drawing, | Oratory, I. |
| <i>German, 2, or French,</i> | |
| II. TERM—Trigonometry, | Rhetoric, I, |
| Drawing, | Oratory, I. |
| <i>German, 3, or French,</i> | |
| III. TERM—Analytical Geometry, | Rhetoric, I, |
| Drawing, | Shopwork, IV. |
| <i>German, 4, or French,</i> | |

SOPHOMORE YEAR.

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|---------------------------------|--------------------|
| I. TERM—Rhetoric, | Shopwork, IV, |
| Mechanics, | Astronomy, I. |
| Chemistry, | |
| II. TERM—Differential Calculus, | Shopwork, IV, |
| Physics, | Astronomy, I. |
| Chemistry, | |
| III. TERM—Integral Calculus, | Shopwork, II, |
| Physics, | History of Art, I. |
| Chemistry, | |

JUNIOR YEAR.

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| I. TERM—Electrical Measurements,
Strength of Materials,
<i>Descriptive Geometry</i> , or
<i>Theoretical Mechanics</i> , | Machine Design
and Tools, I,
Thesis. |
| II. TERM—Direct Current Machinery,
Advanced Physics,
Metallurgy, | Machine Design
and Tools, I,
Thesis. |
| III. TERM—Alternating Current Machinery,
Advanced Physics,
Boilers and Engines, | Machine Design
and Tools, I,
Thesis. |

SENIOR YEAR.

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| I. TERM—Design of Electrical Machinery,
Electrical Generating Stations
and Transmission,
Graphical Analysis of Structures, | Social Ethics, I,
Thesis. |
| II. TERM—Design of Electrical Machinery,
Telegraphs, Telephones, Signal-
ing Apparatus,
Hydraulic Motors, | Political Ethics, I,
Thesis. |
| III. TERM—Electric Lighting,
Electric Railways,
Water Supply and Sanitary
Engineering, | Contracts and Specifications, I. |

IX. THE COURSE IN MECHANICAL ENGINEERING.*Leading to the First Degree in Mechanical Engineering.*

FRESHMAN YEAR.

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| I. TERM—Advanced Algebra,
Drawing,
<i>German</i> , 2, or <i>French</i> , | Rhetoric, I,
Shopwork, II, |
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| II. TERM—Trigonometry,
Drawing,
<i>German, 3, or French,</i> | Rhetoric, I,
Shopwork, II. |
| III. TERM—Analytical Geometry,
Drawing,
<i>German, 4, or French,</i> | Rhetoric, I,
Shopwork, IV. |

SOPHOMORE YEAR.

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| I. TERM—Rhetoric,
Mechanics,
Chemistry, | Shopwork, IV,
Astronomy, I. |
| II. TERM—Differential Calculus,
Physics,
Chemistry, | Shopwork, IV,
Astronomy, I. |
| III. TERM—Integral Calculus,
Physics,
Chemistry, | Shopwork, IV,
History of Art, I. |

JUNIOR YEAR.

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|---|-------------------------------------|
| I. TERM—Electrical Measurements,
Descriptive Geometry,
Strength of Materials, | Shopwork, IV,
Machine Design, I. |
| II. TERM—Direct Current Machinery,
Thermo-Dynamics,
Metallurgy, | Shopwork, IV,
Machine Design, I. |
| III. TERM—Alternating Current
Machinery,
Thermo-Dynamics,
Boilers and Engines, | Shopwork, IV,
Machine Design, I. |

SENIOR YEAR.

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| I. TERM—Steam Engineering (49),
Design of Electrical Machinery,
Bridges and Buildings, | Social Ethics, I,
Thesis,
Shopwork, IV. |
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II. TERM—Steam Engineering (50), Political Ethics, I,
Design of Electrical Machinery, Thesis,
Hydraulic Motors, Shopwork, IV.

III. TERM—Steam Engineering (51),
Electric Lighting,
Water Supply and Sanitary Contracts, I,
Engineering, Shopwork, IV.

DEPARTMENTS OF INSTRUCTION.

The method of instruction in the College is varied according to the nature of the subject. Each professor has his individual mode of imparting knowledge, and this, in the result, is advantageous to the learner. In general, the aim is to discuss each branch as the subject-matter requires, yet all are presented practically, comparatively, and historically, with the view of leading the student to the apprehension of the subject as an organic whole and in its relations. The range of the instruction can be gathered from the following account of the different departments.

I. DEPARTMENT OF PHILOSOPHY.

JOHN HOWARD HARRIS, LL. D.,
PROFESSOR OF PSYCHOLOGY AND ETHICS.

CALVIN AURAND HARE, A. M.,
PROFESSOR OF CHRISTIAN EVIDENCES AND LOGIC.

THOMAS ALPHEUS EDWARDS, A. M.,
PROFESSOR OF PEDAGOGY.

The studies in this department embrace Psychology, Philosophy, Ethics, Theism, and Pedagogy.

1. **Psychology, Descriptive and Explanatory.** Required Course. Juniors. First term, five hours.

2. **Physiological and Experimental Psychology.** Elective to Seniors and Juniors. First term, five hours.—PROFESSOR DAVIS.

3. **Lotze, Grundzüge der Psychologie.** Seniors and Juniors. Minor. Two hours.

4. **Philosophy of Mind.** Elective to Seniors and Juniors. Second term, five hours.

5. **Logic, Deductive and Inductive.** Second term, five hours.
—PROFESSOR HARE.

6. **Scientific Method, with Exercises in Analysis.** Seniors and Juniors. Second term, five hours.—PROFESSOR HARE.

7. **Argumentation.** Baker's *Principles of Argumentation*. Briefs, forensics, and oral discussion. Third term. (Rhetoric, 3.)—PROFESSOR PHILLIPS.

8. **History of Philosophy.** Lectures. Required of Juniors. Third term, two hours.

9. **Greek Philosophy** (Greek 10). Elective to Seniors and Juniors.—PROFESSOR HAMBLIN.

10. **Roman Philosophy** (Latin, 16). Elective to Seniors and Juniors.—PROFESSOR ROCKWOOD.

11. **Philosophy.** Jerusalem. Third term, five hours.

12. **Ethics.** Required of Juniors. Second term, five hours.

13. **Social Ethics.** Lectures. Required of Seniors. First term, one hour.

14. **Political Ethics.** Lectures. Required of Seniors. Second term, one hour.

15. **Ethics of Plato and Aristotle.** Study of the Republic and Nicomachean Ethics, with collateral readings and thesis. First term, five hours.

16. **Philosophy of Religion.** Required of Juniors. Third term, three hours.

17. **Evidences of Christianity.** Elective to Seniors. Second term, five hours.—PROFESSOR HARE.

18. **Comparative Religion.** Elective to Seniors and Juniors. Second term, five hours; alternating with 17.—PROFESSOR HARE.

EDUCATION.

19. **History of Education.** A general sketch of educational Theory and Practice in Ancient and Modern times. Lectures Required of Juniors. Third term, one hour.—PROFESSOR EDWARDS.

20. **Psychology of Education.** Based on Harris' *Psychologic Foundations of Education*. Elective to Seniors and Juniors. Third term, five hours.—PROFESSOR EDWARDS.

21. **Comparative and Child Psychology.** Elective to Seniors and Juniors. Second term, five hours.—PROFESSOR DAVIS.

22. **Philosophy of Education.** Based on Horne's Philosophy of Education. Elective to Seniors and Juniors. Second term, five hours.—PROFESSOR EDWARDS.

23. **School Administration.** High School organization, function and management; discussion of methods; survey of College Entrance Requirements. First term, five hours.—PROFESSOR EDWARDS.

24. **Teachers' Course in American History.** Methods of teaching History with special reference to the work of secondary schools. Second term, two hours.—PROFESSOR COLESTOCK.

25. **Teachers' Course in Greek.** The Anabasis and Iliad are used as text. The preparatory work is reviewed, and suggestions made regarding methods of teachings. Some informal lectures are also given regarding the first year's work in Greek. First term, five hours. Seniors and Juniors.—PROFESSOR HAMBLIN.

26. **Teachers' Course in Latin.** Special topics in grammar, with practical exercises in Cæsar, Cicero, Vergil. Third term, five hours. Seniors and Juniors.—PROFESSOR ROCKWOOD.

27. **Teachers' Course in English.** Designed to familiarize the student with the authors required for entrance to college.—PROFESSOR PERRINE.

28. **Teachers' Course in Mathematics.** Mathematics as developed in history and as used in education. (a) Arithmetic: Its culture value, utility, present status in the schools: reforms in arithmetical teaching. (b) Algebra: Its growth during the last three centuries, typical parts (ethical value). (c) Geometry: Its basis, historical position, methods, recent geometry.—PROFESSOR BARTOL.

CERTIFICATES.

The courses in education and methods of teaching, including Child Psychology, the History, the Psychology, and the Philosophy of Education, are helpful to those intending to teach. Students who take not less than eight of these courses will be entitled to a certificate for the work done in addition to the diploma of the Course in which they graduate.

REGISTER OF TEACHERS.

In order to aid Boards of Control in securing suitable teachers, there is kept a registry of graduates of Bucknell University who

may wish to engage in teaching. Alumni and friends of the College will render a service if they will inform the President of vacancies.

II. DEPARTMENT OF LAW.

HAROLD MURRAY MCCLURE, A. M.,
PRESIDENT JUDGE OF THE SEVENTEENTH JUDICIAL DISTRICT,
LECTURER ON CONTRACTS AND PARTNERSHIPS.

ALBERT WILLIAM JOHNSON, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON REAL AND PERSONAL PROPERTY.

CLOYD NILLIS STEININGER, A. M.,
ATTORNEY-AT-LAW,
LECTURER ON BILLS AND AGENCY.

The Bucknell College of Liberal Arts offers in its courses for the degrees in Arts and Science a number of subjects specially bearing upon the study of law. Students prepared for college and having taken one year's work in liberal studies will be admitted to the studies in Law. The instruction is by text-book, lecture, and study of cases. A certificate for the work done is given by the department, in addition to the Diploma of the College. But this certificate is not given for any legal subject in which the student's standing is below nine; nor to any student whose general average is below nine. Opportunity is given for the *Review* of the *Latin*, *History* and *Literature* required in the Preliminary Examination for registration as students of Law in Pennsylvania.

Graduates of Bucknell in the Classical, Philosophical and Jurisprudence Courses are admitted to registration without examination.

1. **Elementary Law.** Robinson's Elementary Law. Third term. Sophomore year.—PROFESSOR COLESTOCK.

2. **Blackstone's Commentaries.** B. I, III, IV. One hour, Junior year, three terms.—PROFESSOR COLESTOCK.

3. **Real Property.** Blackstone, B. II, and Select Cases, Lectures. First term, Junior year.—MR. JOHNSON.

4. **Personal Property.** Text-book, Select Cases, Lectures. Second term, Junior year.—MR. JOHNSON.

5. **Contracts.** Text-book, Select Cases, Lectures. First term, Senior year.—JUDGE MCCLURE.

6. **Bills and Notes.** Text-book, Select Cases, Lectures. Third term, Junior year.—MR. STEININGER.

7. **Agency.** Text-book, Select Cases, Lectures. Third term, Senior year.—MR. STEININGER.

8. **Partnership.** Text-book, Leading Cases, Lectures. Second term, Senior year.—JUDGE MCCLURE.

9. **Principles of International Law.** Fall term, Seniors and Juniors.—PROFESSOR HEIM.

10. **Roman Law.** Third term, Seniors and Juniors.—PROFESSOR ROCKWOOD.

11. **American Civics.** A study of the frame of Federal and State Government.—PROFESSOR COLESTOCK.

12. **American Constitutional Law.** Third term, Seniors and Juniors.—PROFESSOR HAMBLIN.

13. **Constitutional Limitations.** Cooley's Constitutional Limitations and cases.—PROFESSOR HEIM.

14. **Comparative Constitutional Law.** Second term, Seniors and Juniors. A comparison of the Constitutions of England, France, Germany, Switzerland, and the United States.—PROFESSOR HEIM.

15. **Moot courts** are held in which an attorney-at-law and a student sit as judges, and students, deputed to represent the respective sides, present their arguments. The presiding student writes the opinion of the court.

III. DEPARTMENT OF ECONOMICAL AND POLITICAL SCIENCE.

EPHRAIM M. HEIM, PH. D., PROFESSOR.

1. **Economics, I.** General course, devoted chiefly to problems of Production and Distribution.

2. **Economics, II.** Money and Banking. Prerequisite, Course I.

3. **Economics, III.** Public Finance. Financial Administration, Taxation, and Public debts. Alternating with Course II. Prerequisite, Course I.

4. **Corporate Finance and Commercial Law.** Organization and Management of Corporations. Corporation Finance. Form and

Nature of Securities and Commercial Paper. Funding Operations, Accounting and Auditing. Nature and Operations of Special Groups of Corporations, such as Public Service Companies, Financial Institutions, Insurance, etc.

5. Transportation and Commerce. Development of Foreign and Inland Commerce and Transportation. Organization and Methods of Railway Transportation. Theory of Rates, and Methods of State Control. Ocean Transportation, Shipping, and Navigation Acts. Commercial Geography. For Seniors only.

6. Industrial History of United States. Development of Business Organization. Evolution of Types of Industry. Changes in Land Tenure; in the Distribution and Marketing of Products; in Forms of Exchange; in Insurance; in Organization of Labor Force; in Legislative Policy. Race Elements in American Industry.

7. Economics. Two hours a week. One of the following subjects will be studied: (1) English Economic History; (2) Socialism; (3) Labor Legislation.

8. American Civics. A study of the American frame of Federal and State Government.—PROFESSOR COLESTOCK.

9. American Constitutional Law. Cooley's Elements of Constitutional Law. A study of the law of the Federal Constitution.—PROFESSOR HAMBLIN.

10. Constitutional Limitations. The Constitutional Law of the American Commonwealth. The sphere of Civil Rights in relation of the exercise of governmental power through the criminal law, the police power, the taxing power, and the power of eminent domain.

11. Comparative Politics. A comparative study of the Constitutions of England, France, Germany, Switzerland, and the United States.

12. Municipal Government. Organization of City Government. Problems of Administration, Municipal Functions. Relation to the State. Second term; five hours. Seniors and Juniors.

13. International Law. First term, five hours. Seniors and Juniors.

14. Political Parties and Party Government. Origin and Growth of Party Government in the United States. Basis of Party

Division. Rise and Decline of American Parties. Organization and Machinery of Party Government. European Parties. Lectures, one hour a week, throughout the year. Required in Jurisprudence Course, elective to Sophomores in other Courses.

15. **Political Science.** Minor Courses, two hours. One of the following will be given: (1) Elements of Political Science; (2) Administrative Law.

16. **American Diplomacy.** Minor Course, two hours.

IV. DEPARTMENT OF SOCIOLOGY.

WILLIAM EMMET MARTIN, L. H. D., PROFESSOR.

1. **Anthropology, Descriptive and Physical.** Elective to Sophomores. Third term, five hours.

2. **Sociology, Principles and Theory.** Elective to Seniors and Juniors. First term, five hours.

3. **Charities and Reform.** Seniors and Juniors. Second term, one hour. Prerequisite Course 2.

4. **Municipal Sociology.** Seniors and Juniors. Second term, five hours.

5. **History of Art.** Lectures. Sophomores. Third term, one hour.

V. DEPARTMENT OF HISTORY.

HENRY THOMAS COLESTOCK, PH. D., PROFESSOR.

History is studied as the gradually unfolding life-story of the race.

1. **Oriental History.** A survey of the civilizations along the Nile and the Euphrates, including Egypt, Babylonia, Assyria, Phœnicia, and Persia, constituting an introduction to biblical and classical times. First term, five hours.

2. **Hebrew History and Literature.** Second term, five hours.—PROFESSOR PHILLIPS.

3. **New Testament History and Literature.** Third term, five hours.—PROFESSOR PHILLIPS.

4. **Greek Political and Constitutional History.** First term, five hours.—PROFESSOR HAMBLIN.

5. **Roman History.** Second term, five hours.—PROFESSOR ROCKWOOD.

6. **Roman Private Life.** Second term, five hours.—PROFESSOR BALLENTINE.

7. **Medieval Europe.** General survey of Western Europe, from the fourth to the thirteenth century, with especial attention to the institutional life of the people and the progress of civilization. First term, five hours.

8. **Modern Europe to 1789.** From the thirteenth century to the opening of the French Revolution. Considers especially the Renaissance, the Protestant Reformation, and conditions combining to produce, the French Revolution. Second term, five hours.

9. **Modern Europe since 1789.** The French Revolution, the Napoleonic era, Unification in Germany and Italy. Progress in civilization, and in social and industrial conditions. Third term, five hours.

10. **History of England, a.** Political and industrial development of the English people from the earliest times. Second term, five hours.

11. **Constitutional History of England, b.** With especial reference to the growth and development of the present form of constitutional government in England. Second term, five hours. Alternates with course 10.

12. **American Colonial History, a.** European background of American colonization. Political, industrial and constitutional conditions in the English colonies. Causes and results of the Revolutionary War.

13. **American Constitutional History, b.** Origin of the Federal Constitution. Growth of nationality. Conflict between nationality and state sovereignty. Issues involving the interpretation of the Constitution.

14. **Industrial History of United States.** Development of Business Organization. Evolution of Types of Industry. Changes in Land Tenure; in a Distribution and Marketing of Products; in Forms of Exchange; in Insurance; in Organization of Labor Force; in Legislative Policy. Race Elements in American Industry.—PROFESSOR HEIM.

15. **Teachers' Course in American History.** General survey of American history, designed to meet the needs of those who expect to teach history in secondary schools. Minor course.

16. **The Far East.** Survey of present conditions, social and constitutional, in Japan and China. Minor course.

17. **Historical Biography.** Detailed study of one or more important historical characters. Minor course.

18. **Present Conditions in Russia.** Minor Course.

VI. THE GREEK LANGUAGE AND LITERATURE.

THOMAS FRANKLIN HAMBLIN, A.M., LL.D., PROFESSOR.

There are four terms of required work in Greek in the Classical Course, and five in the Greek Philosophical Course; while Greek may be taken as an elective during the entire Junior and Senior years. Besides the Elective courses a number of Minor Courses are offered. In the Elective Courses a year of poetry alternates with a year of prose. A course of New Testament Greek, designed especially for candidates for the ministry and extending through the Senior year, is given by Professor Phillips.

1. **Homer.** *Odyssey*, Books 5-8. Review of verb forms and syntax of verbs. Epic forms and styles. Word lists. Metre. First term, Freshman year.

2. **Lysias.** Six orations. Inflection and syntax of nouns. Prose composition. Attic oratory. Translation at sight and hearing. Second term, Freshman year.

3. **Plato.** *Apology* and selections. Special topics in Greek Syntax. Philosophy and influence of Socrates. The Sophists. Extracts from the *Memorabilia* at sight. Third term, Freshman year.

4. **Greek Political and Constitutional History.** Bury's *History of Greece* is used as a text-book. The class is also required to do collateral reading on important epochs. First term, Sophomore year.

5. **Demosthenes.** *Olynthiacs* and *Philippics*. History and Politics of the Macedonian period. Style of Demosthenes. Second term, Sophomore year.

6. **Æschylus and Sophocles.** *Prometheus Bound* and *Œdipus Tyrannus*. The drama, theatre, and metres. First term, Seniors and Juniors, in alternate years.

7. **Euripides and Aristophanes.** *Medea* and *The Clouds*. Greek Comedy. Religious influence of the poets. Influence of the Classical on the Modern Drama. Second term, Seniors and Juniors, in alternate years.

8. **Greek Literature in English.** A course especially designed for students in the Philosophical and Scientific Courses, that they may become acquainted with some of the Greek masterpieces. The best translations will be studied and explained, and informal lectures will be given on various phases of Greek Literature. Third term, Senior and Junior years.

9. **Demosthenes.** *De Corona*. The oratory of Demosthenes, from a literary and political point of view. *Æschines* against *Ctesiphon* at sight. Second term, Seniors and Juniors, alternating with 6.

10. **Plato.** *The Phædo*. Greek Philosophy. The influence of Plato. Third term, Seniors and Juniors; alternating with 7.

11. **New Testament Greek.** The Gospel according to Luke. Hellenistic Greek. Second and third terms, Freshman year; one hour a week.

12-14. **New Testament Greek.** Translation of the synoptic Gospels; interpretation; Burton's *Moods and Tenses*; characteristics of Hellenistic Greek. Designed for students desiring a linguistic and historical foundation for the interpretation of the New Testament. Three terms. Elective to Seniors.—PROFESSOR PHILLIPS.

15. **Teachers' Course in Greek.** The *Anabasis* and *Iliad* are used as text-books. Thus the Preparatory work may be reviewed, and suggestions received regarding the methods of teaching. Some informal lectures are also given regarding the first year's work in Greek. First term, Seniors and Juniors.

16. **Xenophon.** The *Symposium* and *Œconomicus*. Sophomores and Freshmen. Winter terms in alternate years, one hour.

17. **Homer and Lucian.** Selections from each in alternate years. Sophomores and Freshmen. Third term, one hour.

18. **Xenophon and Æschines.** The *Memorabilia* and the oration against *Ctesiphon*, in alternate years. Seniors and Juniors, first term, one hour.

19. **Sophocles and the Lyric Poets.** Antigone and selections from the Lyric Poets in alternate years. Seniors and Juniors, second term, one hour.

VII. THE LATIN LANGUAGE AND LITERATURE.

FRANK ERNEST ROCKWOOD, LL.D., PROFESSOR.

FLOYD GEORGE BALLENTINE, PH.D., ASSISTANT PROFESSOR.

There are four terms of required work in Latin and eleven of elective in the Classical and Latin Philosophical Courses. Special courses, subject to change from time to time, are also offered.

A. Candidates for the Degree of Bachelor of Science take Latin daily during the Freshman year. This course is intended for students who have passed only in the General Requirements in Latin, for admission. The work consists in the study of *Cicero* (*selected speeches*) and *Vergil*, or *Livy*, and *Prose Composition*.

B. The following courses are designed for students in the Classical and Philosophical Courses, but are also open as electives to students in the Science Course who may be qualified to take them:

1. **Cicero.** *De Senectute*. Livy, Book I. Review of special topics in Latin Grammar. Oral and written exercises in Prose Composition, based upon the text. Translation at sight and at hearing. First term, Freshman year, two divisions.

2. **Livy.** Books XXI, and XXII. Latin Prose Composition, based upon the text. Roman history: Special chapters in Liddell. Second term, Freshman year, two divisions.

3. **Velleius.** Roman History. Pliny. Selections from the Epistles. Translation at sight. Latin Prose Composition, based upon the text. Third term, Freshman year, two divisions.

4. **Horace.** Selections from the Odes, Satires, and Epistles. Prosody; Historical Outlines of the Latin Language and Literature; Wilkins' Primer; Lectures. First term, Sophomore year, two divisions.

5. **Roman History.** The work is based on Allen's Rise and fall of Rome. Mommsen, Bury and Gibbon are used for supplementary reading. Second term, Sophomore year.

6. **Quintilian.** Books X and XII. Roman Literature. Second term; open to those who have taken course 4; alternating with 12.

7. **Juvenal.** Selected Satires. Third term; open to those who have taken course 4.

8. **Roman Philosophy.** Cicero and Seneca. First term; open to Seniors and Juniors; alternating with 11.

9. **Plautus and Terence.** Selected Plays. Lectures on such subjects as the life and influence of Terence, the Roman theatre, the production of comedy, etc. Second term; open to Seniors and Juniors; alternating with 14.

10. **Latin Inscriptions.** Allen's Remnants of Early Latin; Egbert's Manual. Third term; open to Seniors and Juniors; alternating with 13.

11. **Tacitus.** Annals. Translation at sight. Roman History. First term; open to Seniors and Juniors; alternating with 8.

12. **Latin Poets.** Crowell's Selections. Roman Literature. Second term; open to those who have taken course 4; alternating with 6.

13. **Teachers' Course in Latin.** Special topics in grammar with practical exercises in Cæsar, Cicero, Vergil. Third term; open to Seniors and Juniors; alternating with 10.

14. **Roman Private Life.** Lectures; required reading; one report, involving elementary investigation. Second term; open to Seniors and Juniors; alternating with 9.

15. **Roman Law.** Morey's Roman Law; Sandar's Institutes of Justinian; lectures and reports. Third term; open to Seniors and Juniors; required in the Course of Jurisprudence.

16. **Christian Writers.** Tertullian and Latin Hymns, one hour.

17. **Classical Philosophy.** Introductory Course, one hour.

VIII. THE ENGLISH LANGUAGE AND LITERATURE.

ENOCH PERRINE, LITT.D., PROFESSOR.

1. **English Literature,** introductory course. Designed to give a general knowledge of the history of English Literature from the Elizabethan to the Victorian periods, inclusive. Required, second term, Sophomore.

2. **English Literature** from 1832. For those who have taken course 1, and alternating with course 13.

3. **English Literature, 1790-1832:** Wordsworth, Coleridge, Shelley, Byron. For those who have taken course 1, and alternating with course 14.

4. **English Literature, 1614-1790.** For those who have taken course 1, and alternating with course 15.

5. **English Literature, 1600-1660.** For those who have taken course 1, and alternating with course 8.

6. **Shakspere.** Reading of several plays, chiefly as studies in interpretation. For Seniors and Juniors.

7. **Shakspere.** His mind and art. Critical study of *A Midsummer Night's Dream*, *Hamlet*, and *Tempest*. For Seniors and Juniors.

8. **The English Drama.** Its development from the earliest times to Shakspere. For those who have taken course 1, and alternating with course 5.

9. **Teachers' Course in English.** Designed to familiarize the student with those authors, both in the way of theory and practice, that are required for entrance to college. For those who have taken course 1, and alternating with course 10.

10. **Principles of Literary Criticism.** For Seniors and Juniors, and alternating with course 9.

11. **American Literature,** with special reference to the national period. For those who have taken course 1, and alternating with course 12.

12. **Journalism,** a study and practice of the various forms illustrated in the metropolitan "dailies," together with proof-reading, study of the functions of editors, and readings in the history of great American journalists and journals. For those who have taken course 1.

13. **Anglo-Saxon.** Old English Language and Literature, with special elective in *Beowulf*. For those who have taken course 1 and the required work in German.

14. **Chaucer.** Middle English Language and Literature, with readings in Langland and Gower, and in Lounsbury's *The English Language*. For those who have taken course 1 and the required work in French.

15. **Modern English.** Special comparative readings in Modern English Prose. For those who have taken courses 13 and 14, or who show special fitness for the work.

16. **Foreign Literature in English.** Lectures on some of the world's masterpieces are given to the Seniors on Monday mornings during the third term. Alternating with this course, lectures are given on Modern English Fiction.

17. **Periods of English Literature.** Special work is given in different periods of English Literature to those who have passed with credit in courses 1 and 2.

18. *Le Publique et les Hommes de Lettres en Angleterre, 1660-1744; Beljame; or Ecrivains Modernes de l'Angleterre, Montegut.* Minor.

19. **Shakspeare.** Fünf Vorlesungen von Bernhard ten Brink. Minor.

IX. RHETORIC AND ORATORY.

LLEWELLYN PHILLIPS, A.M., D.D., PROFESSOR.

BROMLEY SMITH, A.M., INSTRUCTOR IN RHETORIC AND ORATORY.

CHARLES CARPENTER FRIES, A.M., INSTRUCTOR IN RHETORIC.

A.—COURSES IN RHETORIC AND COMPOSITION.

1. **Rhetoric and English Composition.** Introductory course. Themes, weekly recitations, and consultations. Three terms; one hour. Required of Freshmen.

Students who show good preparation are admitted to a special section, in which more advanced work is given.

2. **English Composition.** Daily themes, recitations, and consultations. First term, five hours. Required of Sophomores.

3. **Argumentation.** Baker's *Principles of Argumentation*. Briefs, forensics and oral discussion. Third term. Open to students who have passed in 1 and 2.

4. **English Composition.** *Advanced Course.* Wendell's *English Composition*. Daily and fortnightly themes, recitations, and consultations. Second term; five hours. Open to Seniors and Juniors.

5. **Theses.** Every member of the Junior and the Senior Class writes a thesis. The Junior theses contain not less than two thousand words, the Senior theses not less than three thousand words. The subjects are chosen in conjunction with the heads of the departments to which the subjects belong. Upon these theses are

based the Junior Exhibition orations and the commencement orations. The subjects of the theses are presented to the Professor of Rhetoric before October 22, and an outline of each thesis is presented to the Professor of Rhetoric at the close of the first term. The completed theses are handed in before March 1. They are examined first by the heads of the departments to which the subjects belong and afterwards by the Professor of Rhetoric.

6. **English Prose.** Studies in Structure. Two hours.

7. **English Prose.** Studies in the Principles of Style. Two hours.

8. **Teachers' Course.** The theory and practice of Rhetoric and Composition. Carpenter, Baker, and Scott. The teaching of English. Five hours. Open to students who have attained an average grade of nine in courses 1, 2, and 4.

9. **The Theory of Rhetoric.** A study of the laws of thought.

10. **Movements of Thought in the Nineteenth Century.** Methods of investigation; theses. Open to Seniors.

B.—COURSES IN ORATORY.

The aim is to train the student to speak effectively in the pulpit or upon the platform or at the bar. All instruction is based upon the principle that impression precedes and determines expression. Each student receives individual attention during the first half of the course in elocution, during the latter half in oratory. Special attention is given to debate. Each student is urged to take an active part in the work of the Literary Societies.

The ultimate object of the *physical culture* is to secure a good presence and the ability on the part of the voice and body to interpret correctly the conceptions of the mind.

FRESHMEN.

1. **Physical Culture.** Exercises for securing correct position, and harmony of movements and attitudes; exercises for breath control and vocal culture and for grace in gesture.

2. **Public Speaking.** Study of the fundamentals of public speaking; delivery of short extracts from masterpieces of oratory, aiming to secure directness, earnestness, and dignity of address. Required, first and second terms, one hour.

3. Public Speaking. Delivery of complete orations illustrating and applying the principles studied in the first and second terms. A prize is offered to the young man and one to the young woman of the Freshman Class who excels in the delivery of these orations. Required, third term.

SOPHOMORES.

4. Public Speaking. Close analysis and study of the details of public speaking; study of the various styles of delivery and of the different forms of discourse. Delivery of selected extracts from masterpieces illustrating each. Extemporaneous speaking. Reviews and continuation of the physical culture of course 1. Required, first term, one hour.

5. Public Speaking. Study of narration. Description and argumentation. Delivery of selections illustrating each. Preparation and delivery of original narrations and descriptions. Extemporaneous speaking. Required, second term, one hour.

6. Public Speaking. Delivery of complete argumentative selections. Preparation for and participation in debate. A prize is awarded to the young man of the Sophomore Class who shall excel in the delivery of an assigned selection in argumentation. A prize is awarded to the young woman of the Sophomore Class who shall excel in the delivery of an assigned selection in narration. Third term.

7. Public Address. The various forms of addressing the public are studied. Beginning with open letters and editorials, the class advances to presentations, acceptances, nominations, dedications, inaugural addresses, institute talks, banquet toasts, eulogies, commemorative orations, etc. Each student prepares and delivers before his class specimens from the above forms. Third term, five hours; Sophomores.

8. Practical Oratory. Briefs and notes are made the basis for extemporaneous addresses; Congressional speeches and modern occasional orations are outlined and studied. The application of rhetorical and of oratorical principles in their connection with logic is considered. Special work in line with the student's intended profession is given. A limited field, historical, economic, or otherwise, is assigned to each student for development. When his orations have been examined and corrected, the student delivers them before the class. First term, five hours; Seniors and Juniors.

9. Interpretative Reading. The use of the voice in bringing out the meaning of the best literature is obtained by practice in class. Attention is given to the pedagogical and psychological aspects of reading. Second term, five hours; Seniors and Juniors. (Counts as Minor.)

JUNIORS.

10. Prize Contest. A prize contest in Oratory is held in the third term by Juniors, appointed on the ground of superiority in composition and elocution as shown during the preceding terms of the college course.

11. Prize and Honor Debate. During the year there are three debates by Juniors, the last of which is a prize and honor debate.

12. Oral Debates. Briefs, Debates, and Criticisms. The Professor of Economic and Political Science coöperates in this course. First term; one hour.

The contestants for the Junior Prize are selected from the students who take this course.

SENIORS.

13. Honors in Debating. During the year an elective course in debating is offered to Seniors. The last debate is public.

14. Prize in Oratory. A prize is offered for the best oration of those delivered by the Senior orators at Commencement, regard being had equally to subject-matter, style, and delivery.

X. DEPARTMENT OF MODERN LANGUAGES.

GUIDO CARL LEO RIEMER, A.M., PH.D., PROFESSOR.

BENJAMIN W. GRIFFITH, A.M.,
ASSISTANT PROFESSOR OF FRENCH.

CHARLES EVANS, A.B.,
INSTRUCTOR IN GERMAN.

A.—GERMAN.

1. Elementary Course. Grammar; German Prose; practice in writing German. Three terms.

2. German Prose. Grammar; practice in writing German, reading of Prose and Poetry. Elective to those who have taken course 1, or its equivalent.

3. **German Prose and Poetry.** Grammar; practice in writing German. Elective course for those who have taken course 2.

4. **Historical German Prose.** Practice in writing German. Elective course for those who have taken course 3.

5. **Modern German Novelists.** Practice in writing German. Elective course for those who have taken course 4.

6. **Schiller.** Practice in writing German; lectures. Elective course for those who have taken course 4.

7. **Schiller.** Practice in writing German; lectures. Elective course for those who have taken course 4.

8. **Goethe.** Practice in writing German; lectures. Elective course for those who have taken courses 5-7.

9. **Goethe.** Shorter Poems, Dichtung und Wahrheit, Faust I; lectures. Elective course for those who have taken course 8.

10. **Lessing.** Practice in writing German; lectures. Elective course for those who have taken course 9.

11. **Kleist and Grillparzer.** Practice in writing German; lectures. Course 11 alternates with course 8.

12. **Hebbel and Ludwig.** Practice in writing German; lectures. Course 12 alternates with course 9.

13. **Heine and Uhland.** Practice in writing German; lectures. Course 13 alternates with course 10.

14. **Lotze.** Grundzüge der Psychologie. (Philosophy 3.)

15. **German Biological Science.** (Biology 21.)

16. **German Chemical Science.** (Chemistry 16.)

17. **Scientific German.** Designed especially for students in the Engineering Courses. Two hours, throughout the year.

B.—FRENCH.

1. **Elementary Course.** Grammar; French prose; practice in writing French.

2. **French Prose.** Grammar; practice in writing French. Elective course for those who have taken course 1.

3. **French Prose and Poetry.** Grammar; practice in writing French. Elective course for those who have taken course 2.

4. **Historical and Critical French Prose.** Practice in writing French. Elective course for those who have taken course 3.

5. **Authors of the XIX Century.** Practice in writing French. Elective course for those who have taken course 4.

6. **Corneille and Racine.** Practice in writing French; lectures. Elective course for those who have taken course 5.

7. **Molière.** Practice in writing French; lectures. Elective course for those who have taken course 6.

8. **Authors of the XVIII Century.** Practice in writing French; lectures. Elective course for those who have taken course 7.

9. **A View of French Literature.** Rapid reading; practice in writing French; lectures. Elective course for those who have taken course 8.

C.—SPANISH.

1. **Elementary Spanish.** Grammar. Conversation. Translation of easy prose. Elective course, for Seniors and Juniors. First term, five hours.

2 and 3. **Spanish Prose.** Translation, Composition, Conversation. Elective course, for Seniors and Juniors. Second and third terms, five hours.

D.—ITALIAN.

Special instruction for engineering students in Italian Grammar and Conversation.

XI. DEPARTMENT OF MATHEMATICS.

WILLIAM CYRUS BARTOL, PH.D.,
PROFESSOR OF MATHEMATICS AND ASTRONOMY.

CHARLES ARTHUR LINDEMAÑN, A.M.,
PROFESSOR OF APPLIED MATHEMATICS.

FRANK MORTON SIMPSON, SC.M.,
PROFESSOR OF PHYSICS AND DRAWING.

WALTER KREMER RHODES, A.M., E.E.,
PROFESSOR OF ELECTRO-TECHNICS.

FRANK EUGENE BURPEE, A.M., ASSISTANT PROFESSOR.

MARTIN LINNAEUS DRUM, SC.M.,
ASSISTANT PROFESSOR OF MATHEMATICS AND SURVEYING.

JOHN RALPH BOGERT, ASSISTANT IN SURVEYING.

ROBERT ROWE SELLERS,
CLAYTON ELMER PHILLIPS,
ASSISTANTS IN DRAWING.

THOMAS L. JAMES, ASSISTANT IN SHOPWORK.

DANIEL MAYNARD WISE, ASSISTANT IN PHYSICS.

1. **Solid Geometry.** The course includes the geometry of solids with plane surfaces, the cone, the cylinder, the sphere, the spherical triangle, and conic sections. Freshman year, Classical Course, first term, five hours.

2. **Algebra.** The topics are ratio, proportion, variation, progressions, theory and development of functions, logarithms, differentiation of algebraic functions, indeterminate equations, series, higher equations. Freshman year, first or second term, five hours.

3. **Determinants and Advanced Algebra.** Open to students who have completed course 2. Second term, five hours.

4. **Trigonometry.** The course includes plane trigonometry with application to problems in mensuration and surveying, and spherical trigonometry with applications to problems in astronomy. Freshman year, second or third term, five hours.

5. **Analytical Geometry.** The student is taken through the properties of the right line, the circle, and the conic sections, and higher plane curves. The course is intended to give a clear concep-

tion of the methods of Cartesian analysis and a knowledge of its results. Freshman year, third term, five hours, or Sophomore year, first term, five hours.

6. **Higher Analytical Geometry.** The course covers the geometry of three dimensions, surfaces of revolution and higher plane curves. Junior year, first term, five hours.

7. **Differential Calculus.** The course includes higher derivatives and functions of several variables, infinite series, maxima and minima. Prerequisite, course 5. Sophomore year, second term, five hours.

8. **Integral Calculus.** The course includes the methods of integration, rectification and quadrature of plane curves, surfaces and solids of revolution, and applications to problems in Physics and Mechanics. Sophomore year, third term, five hours.

9. **Differential Equations.** A course with mechanical applications. Senior year, first term, five hours.

10. **Descriptive Astronomy.** The aim of the course is to present in concise form a synopsis of astronomical knowledge to date. Lectures. Sophomore year, Arts and Science courses, first and second terms, one hour.

11. **General Astronomy.** The subject is taught by text-book, with illustrations in the observatory. The students have free use of the ten-inch equatorial telescope. Third term, five hours.

12. **Geodetic Astronomy.** The course includes the use of the astronomer's transit and micrometer; observations for Time; conversion of Time; Latitude, Longitude, Azimuth and their geodetic determination; figure and dimensions of the Earth; use of the American Ephemeris; practice in the Observatory. Prerequisites, a course in Surveying and one in the Elements of Astronomy. Seniors, first term, five hours.

13. **Plane and Topographical Surveying.** Ten hours per week for thirteen weeks. Text-book, Breed & Hosmer. Recitations on text. Lectures, tests. Field practice in each position on corps using transit, Y, dumpy and hand levels, plane table and compass in surveys for area, for topography, in leveling for profile, grading, excavation, etc. Making attendant computations and maps. Adjustment and care of instruments.

14. **Geodetic Surveying.** Minor course. Sophomore Civil Engineering, one hour throughout the year.

15. Railroad Surveying. Recitation on text. Lectures, tests. Computation, draughting and field practice of simple, compound, parabolic, and easement curves. Field practice in each position on corps making a preliminary survey for a cross-country railroad one and three quarter miles in length. Computations and draughting for determining paper location, fixing grades, amount of excavation, vertical curves, questions of haul, etc. Field practice in putting in paper location and setting slope stakes. An inspection of portions of the Reading and Pennsylvania tracks in a study of switches, Y's, and crossings.

16. Mine Surveying. Problems in Mine Surveying, such as plumbing the shaft, location of borehole, lining up chambers, driving tunnels, are worked out in class and with the instruments. Plotting of notes forms a part of the work. Senior Civil Engineering, third term, five hours for six weeks.

17. City Surveying. The common problems incidental to city engineering are considered, field work, notes, reports, drawing specifications, and estimates being required. Senior Civil Engineering, third term, five hours for six weeks.

18. Descriptive Geometry. A study of the representation of lines, plane surfaces, solids, and sections of solids; the projection of points, lines, and surfaces; practical problems. Engineering Courses, Sophomore year, second term, five hours, and Junior year, first term, five hours.

19-21. Courses in Drawing. Extending through the Freshman year of the courses in Engineering, and required of all candidates for the first degree in Civil, Mechanical or Electrical Engineering. Ten hours a week.

(1) **Linear and Free-hand.** A course in drawing to give the student facility in the use of instruments; Geometrical problems; cross-sectioning; shading; isometric drawing; sketching from models.

(2) **Lettering.** The form and proportion of standard letters; structural details; methods of spacing; laying out titles.

(3) **Architectural Drawings.** Plans, elevations, and perspective drawings; copy of standards.

(4) **Pen and Color Topography.** Topographical signs; methods of hill shading; surface forms by contours and in color and

pencil; enlarging and reducing maps, rendering in water colors, sepia, and charcoal.

(5) **Tracing and Blue Printing.** Photographic methods of the Architect and Engineer.

22. Architectural Design. The design of brick and stone structures, including the preparation of plans and specifications. Junior Engineering, one hour, first and second terms.

23-25. General Physics. (Three terms.) These courses in Physics are required in the Engineering Courses and are elective in the other courses. Instruction is given in the Laboratory supplemented by recitations and lectures.

(a) **LABORATORY.** The Laboratory instruction extends throughout the year and includes experiments illustrating the general laws in all branches of physics. The experiments are largely quantitative and use is made of instruments of precision. The work is entirely individual. The student is required to take notes in the Laboratory, elaborating them outside and presenting for criticism from time to time.

(b) **RECITATIONS.** Recitations supplement the laboratory work. The study of a text covering the theoretical and mathematical side of the subject is required.

(c) **LECTURES.** Frequent lectures are given in which use is made of lecture-room apparatus. All important phenomena are illustrated and experimental demonstrations of the principal laws are presented.

(1) **Mechanics and Heat.** First term.

(2) **Electricity and Magnetism.** Second term.

(3) **Acoustics and Optics.** Third term.

26-29. Advanced Physics. The course extends throughout the year and assumes that the student has completed courses 23-25 or the equivalent. Instruction is given chiefly in the Laboratory. Students are instructed in the use of instruments of precision employed in Heat, Light, Electricity, and Magnetism. The work in the Laboratory is supplemented by written reports in which both general and theoretical results obtained are discussed. These reports afford the basis for criticism of the work. The work must be pursued in such order as the appointments of the Laboratory may require.

26. Electrical Measurements. In this course the student is required to make a thorough study of the instruments of precision used in electrical testing laboratories. The Laboratory is supplied with a large number of galvanometers of the various types, standard cells, standards of resistance, condensers, bridges of the various types, Kelvin Balance, Siemens Dynamometer, variable standard of self-inductance, potentiometers, etc. In brief, the work covers

(a) Measurement of current, E. M. F., Resistance, Capacity, Induction.

(b) Study of primary and secondary batteries and standard cells.

(c) Tests and calibration of commercial instruments.

(d) Magnetic behavior of iron. Hysteresis.

27. Heat. A thorough study of the first and second laws of thermodynamics is made. The laboratory work consists of exhaustive studies in *thermometry*, including high temperature measurements by use of the platinum resistance thermometer and the thermo-couple. *Calorimetry*, including the determination of heat values of *solid*, *liquid*, and *gaseous* fuels. Also the steam calorimeter. *Mechanical equivalent of heat* by means of the continuous-flow calorimeter and the Rowland apparatus.

28. Light. The student is instructed in the use of the spectrometer, spectroscope, interferometer, and photometer. A careful study is made of the candle-power of various types of incandescent lamps and gas burners using the Bunsen, Jolly and Lummer-Brodhun screens.

29. Spectrum Analysis. Recitation one hour, Laboratory eight hours per week.

Comparison, observation and mapping of emission spectra with the spectroscope; the qualitative analysis of unknown chemical mixtures and miners; spark and arc spectra of solids; spark and flame spectra of solids, liquids and gases; absorption spectra of certain mixtures and coloring materials.

The equipment comprises a fine spectroscope by Brasher, a Rowland grating of 14,438 lines to the inch, a spectrometer by the Geneva Society, prisms of all types by the best foreign makers, absorption cells, etc.

30. Strength of Materials. Simple and combined stresses are considered, along with their resulting deformations, methods of test-

ing the materials of construction are outlined, many problems in the design and investigation of beams, columns, shafts, footings, etc., are solved, reinforced concrete receiving special attention. First term, Junior Engineering, five hours.

31. Masonry Construction. The materials of masonry construction and their preparation and use receive attention; a study is made of foundations—ordinary, pile, and under water; masonry dams, retaining walls, abutments, piers, culverts, and elastic arches in stone and concrete are designed and investigated, drawings being prepared for the same. Second term, Junior Civil Engineering, five hours.

32-34. Bridges and Buildings. The first term is devoted to Graphical Statics, problems being worked out daily in the drafting room. The work of the second term consists in the determination of stresses in framed structures by means of graphic and algebraic methods. The third term is spent in the calculation and designing of several roof and bridge trusses. Senior Civil Engineering, three terms, five hours.

35. Roads and Pavements. The economic location, design, and construction of roads and pavements are considered, comparisons being made between the various methods and materials, sections of roads and streets are surveyed and from the notes taken plans, specifications and estimates for construction and paving are prepared. First term, Junior Civil Engineering, five hours.

36. Hydraulics and Hydraulic Motors. This course includes the theory of Hydrostatics and Hydraulics, the flow of water over weirs, through orifices and tubes, and in pipes, canals, and rivers; the measurement of water-power; water wheels and turbines. Senior Engineering, second term, five hours.

37. Water Supply and Sanitary Engineering. Under the head of the collection and storage of water are taken up quantity of water required, rainfall, flow of streams, storage and evaporation of water, supplying capacity of water sheds, springs, and wells. The flow of water in streams, pipes, and channels is discussed, as also the practical construction of water works. A study is made of the various methods of sewage disposal. Third term, Junior Engineering, five hours.

38. Contracts. In this course are given the principles of Common Law as applied to contracts. Third term, Senior Engineering, one hour.

39. Theoretical Mechanics. Differential and integral calculus are required for admission to this course. The first part of the term is given to ordinary differential equations. This is followed by the study of forces, couples, moment of inertia, and flexible cords, together with the geometry of motion, dynamics of machinery, work, energy, friction, and impact. Juniors, first term, five hours.

40. Direct Current Machinery. This course must be preceded by the course in Electrical Measurements or its equivalent. Attention is given to the principles of measuring instruments and their calibration, absolute measurement of inductance, principles of dynamo electric machinery, structural details and performance characteristics together with related problems. Lectures, recitations, and laboratory work. Juniors, Engineering, second term, five hours.

41. Alternating Current Generators, Transformers and Motors. Electromotive force and current curves are traced, and their modifications as determined by various conditions of the receiving circuit are noted carefully. Efficiency, regulation, and general performance of alternating current apparatus are studied in detail. This course must be preceded by the course in Direct Current Machinery. Lectures, recitations, and laboratory exercise. Juniors, Engineering, third term, five hours.

42. Design of Electrical Machinery. During the first part of the work in design type forms of electromagnets, direct current generators and motors are computed and drawings made of the electrical and mechanical details. In the second part of the course, type forms of alternating current generators, transformers, and induction motors are computed and drawn in detail. Exercises are given in the winding of transformers and induction motors. Lectures, computing exercises, drawing and shopwork. Seniors, Electrical Engineering, first and second terms, five hours.

43. Generating Stations and Sub-stations, Distribution of Electricity, Storage Batteries. Comparative performance of the important prime movers, and the economic management of generating plants and sub-station equipment are studied in detail and practical estimates made. Attention is also given to the application of secondary cells to the problems of distribution. Seniors, Electrical Engineering, first term, five hours.

44. Telegraph, Telephone, Railway Signal and Related Apparatus. Attention is given in detail to the electrical connections,

and principles of operation of the various types of apparatus. Efficiency tests are made and the graphs plotted. Recitations and laboratory work. Seniors, Electrical Engineering, second term, five hours.

45. Electric Lighting, Construction, Wiring and Economics. The various systems and arrangements of wiring for lighting and power distribution are investigated, and practical problems in the economics of wiring and line construction are computed. Typical systems are worked out in detail. Seniors, Electrical Engineering, third term, five hours.

46. Electric Railways, Construction, Operation and Economics. This course deals with the theory and design of the different types of electric railway construction. Analysis of train performance, types of control, systems of braking and methods of motor suspension are studied in detail. The economics of the operation and maintenance of American electric railways is considered in the conclusion of the course. Seniors, Electrical Engineering, third term, five hours.

47. Machine Design, Machine Tools. Elementary machines, generation of tooth, outline in gears, and aggregate combinations are studied in detail, followed by the computations of type forms of cutting and grinding tools. Lectures, recitations and drawing. Juniors, Electrical Engineering, throughout the year, one hour.

48. Boilers, Steam, Gas, Air, and Oil Engines, Valve Gears, and Governors. This is a general course dealing with the thermodynamics of the heat engine, the theoretical, indicated and actual horsepower of the steam engine, and methods of calculating each. A study of the different types of steam boilers, and how to calculate and use them, is made. The general subject of combustion is taken up and calculations made on different kinds of fuel, both from proximate and ultimate analyses. A large number of problems relating to steam engines, boilers and power plants are given, and three or four actual tests on engines and boilers are made and reports are made out in accordance with the standard forms. Junior year, Engineering all courses, third term, five hours.

49, 50, 51. Steam Engineering. Senior year, Mechanical Engineering, five hours, through the year.

49. Steam Engines and Turbines. In this course the different types of steam engines and turbines are carefully studied, going more into detail than in course 48, special attention being

given to the moving parts such as valves, valve-gears, etc. Also the various economizing appliances and their effect upon the cost of producing power are taken up. The class-room work is supplemented by frequent tests on engines, by means of which the theoretic calculations are verified. First term.

50. Boilers. A careful study of the construction and settings of different types of boilers is made. Different systems of steam heating are considered and the student is required to design and calculate all dimensions for a steam boiler and piping system of proper capacity to heat a given building, locating all radiators, valves, cocks, steam-traps, etc. Attention is also given to feed water heaters, pumps, injectors and other boiler auxiliaries, as well as to the matter of boiler scale and its preventatives. Second term.

51. Steam Engine Design. This course follows very closely course 49, covering the design of the principal parts of the steam engine, such as the cylinder, piston, shaft, fly-wheel, governor, etc. After the principles of design have been carefully worked out in the class-room, each student is required to design and draw the parts for a steam engine of given size. Third term.

52-54. Shopwork. In Mechanical Engineering, shopwork is required of students throughout the four years of the course. In Civil, Electrical and Chemical Engineering, it is required throughout the Sophomore year. The Machine Shop is provided with all necessary appliances for teaching the subject in the best manner. Four courses are given, each extending through a year.

52. Wood-working. The course is wood-working consists of carpentry, cabinet work and the principles of wood-turning. Freshman year, Mechanical Engineering, two hours.

52. Pattern-making and Moulding. A general course covering pattern-making, simple moulding and the principles of more complex moulding and machine-shop practice. The patterns are made and moulded and the castings machined by the same students. Parts of actual machines, such as gas engines, speed lathes and electric motors are made and assembled during the course. Sophomore year, all Engineering Courses, four hours.

54. Gas and Gasoline Engines. A careful study is made of the various types of gas and gasoline engines, their theory, history and design being discussed. Each student is required to design the parts, make the patterns and actually build a small-sized gas engine,

putting it together ready to run. Junior year, Mechanical Engineering, four hours.

55. Steam Engine. The work in this course is similar to that in course 53, except that either a steam engine or an electric generator is built. Senior year, Mechanical Engineering, four hours.

XII. DEPARTMENT OF CHEMISTRY.

WILLIAM GUNDY OWENS, A.M., PROFESSOR.

WILLIAM P. WINTER, PH.D., ASSISTANT PROFESSOR.

OLIVER SAMUEL DELANCEY, ASSISTANT PROFESSOR.

The courses in Chemistry are designed to give a comprehensive view of the field covered by chemical investigation and to train the student in the various methods of chemical research. The courses as a whole are offered to those who expect to teach chemistry or enter the testing or industrial laboratory. As chemistry is at the foundation of the natural sciences, the first courses are essential to the study of science and medicine, and are important for general culture.

1. Descriptive Chemistry. Text-book, lectures, and laboratory experiments. The properties, preparation, history, and uses of the non-metallic elements and their compounds. First term.

2. Descriptive Chemistry. Text-book, lectures, and laboratory experiments. The properties, preparation, history, and uses of the metallic elements and their compounds. Second term.

3. Qualitative Analysis. In the first part of the term chemical reactions are studied in the laboratory, class-room, and text-book, after which fifty compounds, mixtures, and industrial products are determined. Each student reports individually and is questioned on the methods of determination. Twelve hours laboratory work a week required. Third term, prerequisite courses 1 and 2.

4, 5, 6. Quantitative Analysis. This course, extending through the year, aims to acquaint the student with the methods of analysis used in different chemical determinations.

(1) In the first term Gravimetric and Volumetric analyses are made with pure chemicals to acquire principles and methods.

(2) In the second term, Standardization, rock ore alloy and water are studied.

(3) In the third term, Fire, Gas and Electro-chemical methods are practiced.

7, 8, 9. **Organic Chemistry.** Prerequisites, courses 1, 2, and 3. Five hours a week; laboratory six hours.

(1) First term. The saturated hydrocarbons and their derivatives are studied with special regard to constitution. Pure organic compounds are prepared in the laboratory and their reactions investigated. Ultimate organic analysis begun; Carius' determinations.

(2) Second term. The unsaturated hydrocarbons of the olefine and acetylene series and their derivatives are studied. Later, carbohydrates, ureids, etc., are taken up. Stereo-chemistry. In the laboratory, more preparations are made and ultimate organic analysis continued with determination of nitrogen, carbon, and hydrogen.

(3) Third term. The aromatic hydrocarbons and their derivatives are studied. Later, polycyclic and heterocyclic compounds; terpens and camphors are taken up. In the laboratory, preparations of comparative difficulty are made and ultimate organic analysis continued with electro-combustions.

(4) Organic Preparations. Prerequisites, Organic Chemistry. A laboratory course of fifteen hours per week, designed to give technic in organo-synthesis. Written reports with critical discussions of reactions, methods, etc., are required for all preparations.

(5) Organic Preparations. A laboratory course of fifteen hours per week. Written reports required as in IV. Dyes are prepared during the first part of the term, and sugars and related compounds are later taken up.

10, 11, 12. **Physical Chemistry.** Prerequisites, Chemistry 1, 2, 3, 4, 5, and 6; Physics 23, 24, and 25. Calculus.

Five hours per week. Laboratory six hours. Written reports with critical discussions required for all experiments.

(1) First term. Gases and gas laws, kinetic theory of gases, solubility, the phase rule, equilibria, etc., are studied. Thermodynamics introduced.

Laboratory determinations of density, viscosity, molecular rotation and refraction, solubility, partition, and vapor pressure are made.

(2) Second term. Thermo-chemistry, solution, osmotic pressure, and balanced actions are first studied. Later, the theoretical part of electro-chemistry is begun. Chemical statics and dynamics continued.

The laboratory work consists of determinations in thermometry, calorimetry; of molecular weights, and velocities of reactions.

(3) Third term. Electro-chemistry. Theoretical electro-chemistry is continued and technical subjects are studied. Conductivity, migration of iron, electromotive force, and polarization are studied in detail. Experiments on these subjects constitute the laboratory work.

13, 14, 15. **Chemical Preparations.** Prerequisites, courses 1, 2, 3. Laboratory Course; fifteen hours per week.

(1) First term. Inorganic substances are prepared and purified. Underlying principles of methods are emphasized in the written reports required for all preparations.

(2) Second term. Fifteen hours per week. Preparations of some difficulty are now made. In the second half of the term compounds of the rare earths are prepared and their reactions studied.

(3) **Electro-synthesis.** Third term. Inorganic and Organic compounds are synthesized with the aid of the electric current. Arc-furnace work is later taken up. Relations of yield to temperature, current density, etc., are taken up in detail by the student in the written reports.

16. **Toxicology and Urinalysis.** Poisons and their separation from organic matter are studied during the first part of the term. During the second part analysis of urine and of food adulteration is studied. Laboratory work, ten hours a week. Prerequisites, courses 1, 2, and 3.

17. **Metallurgy.** The manufacture and properties of iron and steel are studied and the influence of carbon, silicon, phosphorus, sulphur and other elements. Laboratory work consists in determining these elements and studying the structure under the microscope. Glass blowing and manipulation are also taken up. Laboratory work, eight hours a week. Prerequisites, courses 1, 2, and 3.

18. Agricultural Chemistry. The chemistry of plants and fertilizers is studied. Fertilizer and food analysis is practiced in the laboratory six hours a week. This course covers the legal requirements for teachers of Pennsylvania high schools. Prerequisites, courses 1, 2, and 3.

19. German Chemical Literature. One hour a week, throughout the year. Prerequisites, at least two terms of German, and courses 1, 2, and 3 in chemistry.

Selections from standard German text-books and periodicals are read, and study is made of the derivation and formation of scientific words.

20. Physical Chemistry. Mathematical topics.

21. Organic Research.

22. History of Chemistry.

XIII. DEPARTMENT OF BIOLOGY.

NELSON FITHIAN DAVIS, SC.D., PROFESSOR OF BIOLOGY.

NORMAN HAMILTON STEWART, A.B., SC.M.,
ASSISTANT PROFESSOR OF BIOLOGY.

MORRIS VICTOR HUYETTE, SC.B.,
ELWOOD HARRIS COURTER, ASSISTANTS.

It is the constant aim in this department to teach how to interpret nature. The student is guided in his investigations by lectures and laboratory manuals.

1. Animal Physiology. The aim of this course is to acquaint the student with the elementary facts concerning the functions of the human body. The work consists of lectures and readings from text-books on Physiology. The course is intended for those who wish a general knowledge of Physiology.

2. Physiological and Experimental Psychology. Elective to Seniors and Juniors.

3. Comparative and Child Psychology. Text-book, reports. Elective to Seniors and Juniors.

4. Sanitary Science. Lectures, one hour a week through the year.

5. **Human Osteology and Comparative Anatomy.** Recitations and dissections. In this course the student makes a systematic study of the human skeleton. The structure of the composite bones is compared to those of other vertebrates.

6a. **Human Anatomy.** Lectures, recitations, and dissections. The student has an opportunity to make a complete dissection of the entire human body. The work is largely independent. Models and text-books are used as guides.

6b. A second course, similar to 6a.

7. **Normal Histology (a).** Recitations and lectures, and laboratory work. In this course the student makes a thorough study of the microscopic structure of the cell and elementary tissues, followed by the study of the various organs of mammals. In the laboratory work the students prepare specimens by the various methods in fixing, hardening, straining and sectioning.

8. **Normal Histology (b).** A continuation of course 7.

9. **Embryology.** Recitations, lectures, and laboratory work. This course is important because it gives a key to the interpretation of the structure and relationship of the parts of the animal body, and because it investigates the development of the individual. It includes the early development of amphibians, birds and mammals.

10. **Biology.** Recitations and dissections. The aim of this course is to meet the needs of general education in this subject, and at the same time makes clear the fundamental principles, scope, method, history, and subdivisions of Biology and its relations to other sciences.

11. **Invertebrate Zoölogy.** Recitations and dissections. This course succeeds the course in Biology. It takes up the study and dissection of representatives of the invertebrate groups, including their life history, habits, and distribution.

12. **Vertebrate Zoölogy.** Recitations and dissections. This is a continuation of course 10. It completes a general survey of the animal kingdom, special attention being given by each student to dissections, anatomy, life histories, and habits of the various groups.

13. **Philosophy of Zoölogy.** Lectures and discussions. The evolution of the animal kingdom is traced and much time is given

to the relation of evolution to thought. The principal facts and problems of variation and heredity are dealt with.

14. Entomology. Recitations and laboratory work. In this course each student makes a thorough study of the dissection, life history, and habits of insects representative of the different orders. Special attention is given to the economical importance and relation of insects to agriculture.

15. Heredity. Minor course. The lectures and reports deal with the principal facts and problems of variation and heredity and are supplemented by collateral readings.

16. Phænogamic Botany. Recitations, lectures, and field work. This is a general course including the anatomy of the representative types and their relation to the environment; a study is made of the local flora.

17. Cryptogamic Botany. Recitations, lectures, and field work. This includes a general introduction to Botany, taking up the study of at least one plant from each of the groups, and working out their life histories. The laboratory work and lectures develop the subject from the evolutionary standpoint.

18. Elements of Forestry. A course covering the factors that control and regulate the development of our forests.

19. Bacteriology. Recitations, lectures, and laboratory work. The laboratory work includes the practice of the essential bacteriological methods. Much time is given to the study of bacteria found in water and in milk.

20. Mineralogy and Geology. Recitations, lectures, and laboratory work. A general course intended to give the leading facts and principles of Geology and the more important events in the Geological history of the earth. The development of the North American continent is studied in detail.

21. Economic Geology. Recitations, lectures, and laboratory work.

22. German Biological Literature. Junior year, one hour throughout the year.

MEDICAL PREPARATORY DEPARTMENT.

The student can select from the medical subjects offered at Bucknell University such as will be required for advanced standing in the Medical College in which he may wish to complete his studies

for the degree in medicine, and if his standing in such subject averages not less than nine, he will receive from the Department of Medicine in Bucknell University a Certificate of proficiency in those subjects and in such other subjects related to medical studies as he may have completed at Bucknell. These subjects are open only to students in the College of Liberal Arts, and the Certificate of proficiency is given to students only upon graduation, and in addition to the Diploma of the College of Liberal Arts.

THE BIOLOGICAL LABORATORY.

The Biological Laboratory is equipped with apparatus for carrying on work in the Organic Sciences. A large room has been fitted up especially for Microscopic work with equipments for students. Each student has a separate desk containing a microscope and the necessary reagents. The Laboratory is also supplied with collecting and bacteriological apparatus, with books of reference, and other appliances necessary for carrying on Biological research. Those taking Microscopy have the use of microtomes, incubators, reagents, etc. New apparatus is added as occasion demands. The work in Zoölogy is illustrated by marine and freshwater forms, skeletons, and mounted specimens. In comparative Anatomy and Osteology the work is illustrated by skeletons representing different types of vertebrates. Physiology is illustrated with human skeletons, a life-size French manikin, prepared tissue, and numerous charts. Material for Human Anatomy is received from the State Anatomical Board in Philadelphia, and each student has the opportunity to dissect the whole human body. The student in Histology and Embryology has a good supply of paraffin and collodion blocks. The work is illustrated with microscopic slides, alcoholic material, and French wax models. Each student is provided with dissecting instruments.

THE MUSEUM.

PROFESSOR NELSON FITHIAN DAVIS, SC.D., CURATOR.

ELLWOOD HARRIS COURTER, ASSISTANT.

The University possesses good collections of illustrative material in Botany, Zoölogy, Histology, Geology, Mineralogy, and Materia Medica. Parts of these collections are kept in the laboratories and used in class-room work.

Since the erection of the Carnegie Library two large rooms in this building have been set aside as a museum, and the principal collections have been transferred from the Main College to these rooms. A special effort is being made to secure additions to the museum and objects will be thankfully received; especially such as can be used in laboratory work. Among these may be mentioned: marine and fresh-water forms of life; insects; skeletons of vertebrates; birds and mammals; botanical specimens; crystalized minerals and rocks.

A large collection now owned by the University consists of minerals and rocks, fossils, and Indian relics. It is especially desired to secure collections to illustrate the geology, minerals, flora, and fauna of Pennsylvania. Recently attention has been given to increasing the collection of Pennsylvania birds, and it is hoped that within a short time the University may possess a good series of mammals also.

ART COLLECTION.

A room in the Carnegie Library ninety feet long has been set aside for the Art Collection. The collection consists of about one thousand specimens of paintings, casts, engravings, and heliotypes, and furnishes valuable aid in illustrating the principles and history of painting and sculpture.

A course of lectures is given yearly to students of the Sophomore class on the History of Art.

THE LIBRARIES AND READING ROOMS.

PROFESSOR WILLIAM E. MARTIN, A.M., LIBRARIAN.

PAUL RAYMOND WENDT AND OLIVE MANSFIELD COOPER, ASSISTANTS.

The College Library. The general Library contains over thirty thousand volumes, besides many thousand pamphlets. The reading room is connected with the Library, and offers facilities for reading, studying, and writing. During term time both are open forenoon and afternoon of each day, Sundays and holidays excepted, and both are maintained without extra charge to students. Students in all departments have free access to the shelves, and may draw two books at one time and retain them for two weeks, with the privilege of one renewal, if desired.

For greater convenience of instructors and students, collections

of special technical books are also kept in the Laboratories of the Physical and Organic Sciences, and in the Astronomical Observatory.

The Library is regarded as a working laboratory for all departments of instruction, students being constantly cited to it in class-room work. In this way, while answering the purpose of general culture, it supplements in great measure the monographic treatment of text-book study, and the student is trained under competent guidance to become an investigator. The resulting practical acquaintance with books and bibliography proves a valuable part of liberal education.

The Carnegie building for the accommodation of the Library was erected in 1905, the gift of Hon. Andrew Carnegie, D.C.L.

By aid of the Card Catalogue and Poole's Index to Periodicals, all the resources of the Library on any given subject are at once available.

Gifts to the Library of money and of books will be thankfully acknowledged by the librarian.

CLASS ORGANIZATION.

Each class is organized with a president and other usual officers. The classes meet for the election of officers on the first Friday of the school year, at three o'clock in the afternoon. The officers then elected serve until their successors qualify. The officers elected on that date by the Freshman class serve until Matriculation day, when permanent officers are elected.

FRATERNITIES.

No student is permitted to join a fraternity until he has received a certificate from the President of the University under seal that he has been a student for one year in the college, that he has completed one year's work and that his conduct has been satisfactory.

GENERAL COLLEGE ORDERS.

ATTENDANCE.

Only under exceptional circumstances will excuses be granted to leave College during term time. In such cases the examination on the studies gone over by the class, during a student's absence, will be especially searching, and a high degree of attainment will be required. When a student is absent more than one fourth of the term for any reason, he is required to stand private examination in addition to the examination required of the class. One who is absent during the entire term must also necessarily lose his standing in his class. The work of the term begins on the day of opening, and recitations are expected at the first hour appointed for the meeting of the classes. The work continues uninterruptedly, with the exception of holidays marked in the Calendar, until the last day of the term.

STANDING.

Each instructor records, in numbers ranging from 0 to 10, the character of the recitation of every student reciting to him, and notes also any delinquency in conduct and attendance. The weekly summary of these markings is recorded in permanent books, and constitutes the basis for determining the standing of the student during his connection with the institution. Unexcused absences from recitations are counted as zero in making up the weekly averages. *Excused* absences have half the effect in lowering a student's standing as unexcused absences, but a student may, at the option of the professor, do supplementary work to obviate the effect upon his standing of excused absences. At the close of each term an average of these marks is made out, and, if the student's financial obligations to the institution have been met, a report of the scholarship, attendance, and conduct of each student is transmitted to his parent or guardian by the President. No student is advanced from one class to another whose average in any study is less than 7; nor is any student recommended to the Board of Trustees for graduation in the general courses if his average standing during

either his Freshman or Sophomore year is below 8; or if in his Junior year it is below 8.5; or if in his Senior year it is below 9. The passing grade for graduate students is 9. No one will be recommended for graduation in the Courses in Jurisprudence, Biology, Chemistry, and in Civil, Electrical, or Mechanical Engineering, nor be granted a certificate in the Law or Medical studies, if his average is below 9.

Conditioned students are not recommended to the Board of Trustees for promotion. Students conditioned on entrance must discharge such conditions within the first year thereafter.

If the student has failed in the studies of a term, he will not be permitted to enter upon the studies of a subsequent term until he has passed in the subjects in which he failed, unless a postponement of examination to a definite time is granted by the Faculty.

Appointments in the Graduating Class are made according to the aggregate standing of each member during his entire course. But in assigning these parts the Faculty takes into account the deportment of the student, as well as marks for recitations. The minimum average for an Oration of the First Class is fixed at 9, and for the Oration of the Second Class at 8.

Students who attain an average of 9.4 or more for their entire course are graduated *summa cum laude*; students who attain an average of 9.2 or more are graduated *magna cum laude*; those who attain an average of 9 or more are graduated *cum laude*.

EXAMINATIONS.

The dates of the examination are given in the Calendar. In case a student fails to be present at the examination of his class, for any justifiable reason, his examination will be held at such time as the Faculty may appoint, but in no case is an examination granted a student in advance of the time appointed for the examination of the class.

Unless for very good reasons to the contrary, a student who is granted a special examination will be required to pay a fee of five dollars therefor.

PUBLIC WORSHIP.

The College duties of each day are opened with religious services at Bucknell Hall, which all the students of the College are required to attend.

Attendance upon public worship in some church in town on

Sunday morning is required. Students are required to attend the religious services held on Thanksgiving Day.

On the Day of Prayer for Colleges, a sermon is preached by the President, or by some one at his request. All the students are required to attend.

GOVERNMENT.

It is assumed that all who enter the courses of study in the College do so for the purpose of acquiring an education, not only of the intellect, but also of character. The Laws of the College, enacted by the Board of Trustees, are as few and simple as the proper regulation of a community of young men will permit. These are printed, and a copy is placed in the hands of every student at the beginning of each year. These laws must be observed, not only in their letter, but in their spirit. The atmosphere of the institution is not that of arbitrary restraint, but of reasonable conformity to reasonable laws. The College does not wish to place its stamp or bestow its honors upon any one who is not willing to deport himself as a gentleman. Each student is distinctly placed upon his manhood, and if he abuses his privileges, after reasonable caution, he must withdraw from the institution, at the request of the President.

PRESIDENT'S OFFICE HOURS.

The President of the University is in his office in the Main College building, every Tuesday, from 9.30 A. M. to 12 noon, to confer with students who may desire advice or assistance. Students are encouraged to communicate frankly with the President upon any subject in which he may be of help to them.

OFFICE HOURS FOR THE COLLEGE WOMEN.

The Dean of the Women's Department will meet in his office College women who may desire advice or assistance from him.

VOLUNTARY SOCIETIES.

The Young Men's Christian Association is formed of students of the College. It receives religious periodicals and corresponds with kindred societies. A hall has been appropriated to the Society, and has been suitably furnished for religious meetings.

The Young Women's Christian Association, a voluntary society open to the officers and students of the College and Institute, meets weekly. The regular Tuesday evening prayer meeting,

missionary and temperance work, special Bible Classes and College Settlement Work are in charge of this Association.

Euepia; Theta Alpha. These are the two Literary Societies of the College for men. They hold meetings for Orations, Essays, and Debates. Each Society has a convenient hall, and by an arrangement of the Faculty will always have a nearly equal number of members.

The Zeta Literary Society is composed of young women admitted to any of the Courses in the College.

The Students' Publication Association is an organization which has in charge the issuing of the *Bucknell Mirror*. This periodical appears monthly during the collegiate year. The same Association publishes the *Commencement News* daily during Commencement week.

Another association of students publishes, weekly, during the school year, the *Orange and Blue*.

The Athletic Association of the college has been formed to encourage and regulate athletic sports. Considerable liberty is allowed the Association in carrying out its purpose. The Association is not allowed, however, to arrange match games with other similar bodies without having secured the consent of the Faculty. Subject to the control of the Faculty, the general management of athletics is managed by an Executive Board, consisting of three members elected by the Faculty, two by the Alumni Association, and two by the Athletic Association of students.

No student who is deficient in rhetorical or classroom work in any term shall be eligible to the office of manager or director in any student organization, or to be a member of any exhibiting organization, or of any contesting athletic team, or of any publishing or editing board during any subsequent term until such deficiency is made up.

HEALTH AND PHYSICAL CULTURE.

The Tustin Gymnasium has been provided for the physical training and development of young men. Young women have opportunity for physical training in the Calisthenium of the Women's College. These are now provided with the apparatus usually found in well-furnished gymnasiums. The Directors of the Gymnasium examine every student, taking and recording in a book his physical measurements, and prescribe such exercise as may be required for his physical development. Regular exercise in the Gymnasium is required of students during the winter term.

AIDS AND HONORS.

PRIZES.

The prizes are awarded to the persons who in the judgment of the several committees attain the highest degree of excellence among the respective competitors, but no prize is bestowed unless a high degree of merit has been attained by the person receiving it.

THE PRIZE OF THE CLASS OF '71.

This prize, established by the Class of 1871, is awarded to the student of the Freshman Class who shall prove himself best prepared for College in the two branches, Latin and Mathematics, and who shall have received his preparatory training at Bucknell Academy.

The prize for 1911 was awarded to Frank Russell Hamblin.

THE FRESHMAN DECLAMATION PRIZE.

A prize is awarded to the member of the Sophomore Class who shall excel in declamation at the Annual Contest of the Freshman Class.

The prize for 1911 was awarded to Jasper C. Frantz.

THE SOPHOMORE DECLAMATION PRIZE.

A prize is awarded to the member of the Sophomore Class who shall excel in declamation at the Annual Contest of the Sophomore Class.

The prize for 1911 was awarded to Logan Earl Jackson.

DECLAMATION PRIZES FOR WOMEN.

Prizes for the best declamation, open for competition to the Sophomore and Freshman Classes, were awarded in 1911 respectively to Winifred Augusta Naylor and Edna Alice Whittam.

THE REGISTRAR'S PRIZE.

The Registrar of the University offers a prize to that member of the Junior Class who shall pronounce the best oration at the Junior Exhibition in Oratory.

The Junior oratorical prize was awarded in 1911 to Marc Luther Baldwin.

THE JUNIOR DEBATE PRIZE.

Prizes are awarded to the two members of the Junior Class who evince superiority in debate at the Junior prize contest.

The prize was awarded in 1911 to Frederick Iglar and Stanley Powell Davies.

THE HERBERT TUSTIN PRIZE.

In memory of his deceased son, the late Professor Francis Wayland Tustin, Ph.D., of the Class of 1856, paid to the Trustees of the University the sum of five hundred dollars, "as the foundation of the HERBERT TUSTIN PRIZE FUND, the interest of which is to be forever paid annually as two prizes, in the proportion of fifteen dollars for the First Prize, and of ten dollars for the Second Prize, to the two students of the Senior Class who shall have attained the highest and the second highest standing in Psychology and Ethics (under such regulations for the pursuit of these studies as the Faculty of the College shall prescribe from time to time), and whose conduct for the last two years of their course in College shall have been without exception."

The first prize was awarded in 1911 to James Wesley Shipe, and the second to Leroy MacFarland.

THE HERBERT GOODMAN BARROWS PRIZE.

In memory of his son, the Reverend William Barrows, A.M., of the Class of 1867, paid to the Trustees of the University the sum of five hundred dollars, "as the foundation of the HERBERT GOODMAN BARROWS PRIZE FUND, the interest of which is to be forever paid annually as two prizes of equal amounts to the student or two students of the Senior Class who shall have attained the highest standing, respectively, in the Latin and in the Greek language and literature (under such regulations for the pursuit of these studies as the Faculty of the College shall prescribe from time to time), and whose conduct for the last two years of their course in College shall have been without exception."

The prizes for excellence in Greek was awarded in 1911 to Frank Clarence McNair; the prize for excellence in Latin was awarded in 1911 to Elizabeth Simpson Kates.

THE CHAPLAIN J. J. KANE PRIZE.

The Reverend James J. Kane, A.M., Chaplain in the United States Navy, and a graduate from the Theological Department of this University, of the Class of 1867, has established a prize which is to be given annually to that member of the graduating class who delivers the best oration on Commencement Day.

The prize was awarded in 1911 to Marc Luther Baldwin.

THE ANNA MOORE HARE PRIZE.

In memory of his daughter, Anna Moore Hare, the Reverend Calvin Aurand Hare, A.M., has established an annual prize in Logic, to be awarded to that student at graduation who shall have done the best work in Logic, regard being had both to the amount and the quality of the work.

The prize was awarded in 1911 to Norman Gould Oliver.

SCHOLARSHIPS.

I. THE BUCKNELL SCHOLARSHIPS.

The William Bucknell Scholarships, twenty in number and of \$1,000 each, were established for the purpose of aiding worthy young men in securing an education which will increase their usefulness in life. The income from this fund is to be paid annually to twenty young men, in accordance with the rules which will be made known upon application to the Committee of Examination, consisting of the President of the University, H. S. Hopper, Esq., and Professor Rockwood.

II. SCHOLARSHIPS FOR MINISTERS' CHILDREN.

Scholarships upon the general foundation have been established for the children of ministers of the Gospel, of all denominations, in active service.

III. THE LIVINGSTON SCHOLARSHIPS.

Established from a legacy of M. B. Livingston, twenty-two in number, are available for students for the ministry.

IV. THE LONGAN SCHOLARSHIP.

The Longan Scholarship, established from a legacy of O. W. Longan, Esq., is available for a student for the ministry from Lycoming County, Pennsylvania.

V. THE LEWIS E. JONES SCHOLARSHIP.

Established from a legacy of the late Lewis E. Jones, and is available for students of Welsh descent to the amount of the income from five hundred dollars.

VI. THE JOHN HOWARD HARE SCHOLARSHIP.

Established by the Reverend Calvin Aurand Hare, A.M., in memory of his son, John Howard Hare, available for a student for the ministry upon recommendation of the Pennsylvania Baptist Education Society and the President of the University.

VII. THE VELOLA E. HALL SCHOLARSHIP.

Established by the Reverend Henry Chandler Hall, A.M., Class of 1882, in memory of his daughter, Velola E. Hall, A.B., Class of 1904, available for a student in the Women's College.

VIII. THE WILLIAM V. WILSON SCHOLARSHIP.

The William V. Wilson Scholarship was established in memory of the Reverend William V. Wilson, D.D., of New Jersey.

IX. THE PHILADELPHIA ALUMNÆ SCHOLARSHIP.

This scholarship, founded by the Philadelphia Alumnæ Club, is available for a woman student from Philadelphia.

X. THE MEDICO-CHIRURGICAL SCHOLARSHIP.

The Medico-Chirurgical Medical College of Philadelphia offers a scholarship covering tuition in that college to the student from Bucknell University who evinces the best preparation and aptitude for medical work.

XI. THE GENERAL MILLER SCHOLARSHIPS.

Ten scholarships have been established by Major-General Charles Miller, A.M., to be awarded to worthy members of the graduating class.

XII. ANNUAL SCHOLARSHIPS.

A number of persons have established annual scholarships for the aid of young men or women attending college. Information concerning annual scholarships can be obtained from the President of the University.

EXTRA STUDIES.

In order to promote special scholarship in the several departments of study, the following provision has been made:

1. Any student who has obtained an average of 9 in the studies of the previous term may take special work in any department of the College under the direction of the Professor of that department.

2. Such work must be assigned by the Professor, and the method of study described by him.

3. If the student shall attain an aggregate average of 9 in all the studies of the current term, and pass a satisfactory examination in the voluntary study, the work shall be credited to him.

4. Only one such study may be pursued by any one student during any one term. A student may also take two such minor studies or one such major study in the Summer vacation.

5. The Professor with whom the student is working shall have the privilege of requiring a partial examination on the work done at any time during the term, and there may be regular recitations at the Professor's option.

6. The amount and quality of minor work shall be taken into account in awarding honors at graduation, but is not counted toward any degree.

EXPENSES.

The College charges amount to \$140 per annum, for those who room in the College buildings, and \$130 for those who room in the town. The College charges include library fee, gymnasium fee, and other incidental fees common to all students, as well as tuition. Tuition is rated at \$50 per annum, and is included in the College charges. Students in the Course in Civil, Electrical or Mechanical Engineering are charged \$5 per term extra. Students in the other Courses who take an engineering subject are charged the same rates as students in engineering. This charge is for the regular work; when a fourth study is taken, an extra charge of \$10 is made. Graduation fee and diploma, \$10. Masters' Degree and Diploma, \$10.

The Study Rooms in the Main College are so arranged that two students occupy the same study. The Dormitories are intended to accommodate only one person, so that each student has his own private sleeping room. These are furnished with spring bedsteads. The student must supply himself with all other furniture. Students are responsible for damage to their rooms, whether it be done when they are present in the room or absent from it.

If a student occupy a study by himself, the charges for room-rent and private fuel will be doubled.

An extra charge is made for electric lighting of private rooms.

An extra charge ranging from \$5 to \$10 per term is also charged for rooms in the East and in the West College.

An additional charge is made for rooms cared for by the Institution.

Young men in the Collegiate Department, who so desire, can have furnished rooms in the West College, with board in the Academy.

Young women in the Collegiate Department room and board in the Women's College. The standard annual charge for board, tuition, furnished room, heating, lighting, is \$310. An extra charge for choice rooms in the Bucknell Cottage and in New Cottage, ranging from \$5 to \$10 per term, is made.

The assignment of rooms is for one year, and is made the first Monday morning in June, immediately after the devotional exercises in Bucknell Hall. Students from a distance will save inconvenience by applying to the Registrar for a room before the term opens. A deposit of \$10 is required when a room is chosen. This amount is credited upon the regular term bills. Should a student for good reasons be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

In the Laboratories students pay for chemicals used and for apparatus broken or damaged. In the chemical laboratory \$5 per term is charged for gas, water, and general chemicals for each course, except Courses 1 and 2, for which the charge is \$2.50. A deposit of \$5 per course is required to cover breakage and cost of extra chemicals.

A small fee is charged also in each of the elective courses in the departments of Mechanics and of Organic Science and in Surveying and Engineering, for the use of instruments and for material used.

Before entering upon the experimental courses students must deposit with the Registrar security for materials used.

These charges must be paid in advance at the beginning of each term.

No student is entitled to his place in his class until he has made settlement with the Registrar.

Students can board in clubs at a cost of from \$2.00 to \$2.50 per week. Boarding can be obtained in private families at \$3.00 or \$4.00 per week, or at the table of the Bucknell Academy at \$3.50 per week. No self-boardings is allowed in the College buildings.

SIXTY-FIRST ANNUAL COMMENCEMENT

WEDNESDAY, JUNE 21, 1911.

HONORS AT GRADUATION.

ORATIONS SUMMA CUM LAUDE.

MARC LUTHER BALDWIN,	HESTER ELLEN PYLES,
VERA ZULEIKA COBER,	RUTH SUMMERS SAFFORD,
MARGARET CURTIS,	JAMES WESLEY SHIPE,
FRANK GARFIELD DAVIS,	HOWARD WARNER STARKWEATHER,
ELIZABETH SIMPSON KATES,	JOHN WEBSTER TRAUGER,
LEROY MACFARLAND,	JAMES ARTHUR TYSON,
HARRY REED WALTMAN.	

ORATIONS MAGNA CUM LAUDE.

JACOB KREIDER BOWMAN,	LAURA ELLEN MCGANN,
KATHERINE VIRGINIA BRONSON,	DANIEL HENRY NESTOR,
CHARLES NORMAN BRUBAKER,	NICHOLAS WHITMAN ROSENBERG,
KATHERINE GRAY CARPENTER,	JOHN ORAM LYTE ROSER,
HELEN WINIFRED CURE,	ROBERT DEAN SISSON,
NORA ELIZABETH DODSON,	EDGAR AMBROSE SNYDER,
MATILDA YOUNG GOLDING,	PAUL CLINTON SNYDER,
FRANK THOMAS HAMILL,	JOHN HERBERT WAITE,
CHARLES HUNTER HEACOCK,	VERNA AMANDA WHITAKER.

ORATIONS CUM LAUDE.

ELMER MATLOCK APP,	FRANKLIN JOSEPH GRONDE,
ROY SIGNOR DAUBERT,	EARL EDWARD HINMAN,
RAYMOND CALEB DECKER,	ANDREW JOHN HUSTON,
WOODS FREDERICK DERR,	JOHN KASE,
ARTHUR CLAY FAIRCHILD,	HERBERT SPENCER LLOYD,
ALLAN MANCHESTER FITCH,	WALTER HERTZ MANN,
MERNA JULIA GIFFIN,	SARA ELLA MEYER,

ORATIONS CUM LAUDE—Continued

NORMAN BLAIR McANULTY,
EVELYN HOPE McCASKIE,
HELEN BROWN McClURE,
WILLIAM McCULLEN,
FRANK CLARENCE McNAIR,
NORMAN GOULD OLIVER,
ELLIS CLYDE PERSING,
CLARENCE KEISER PUGH.

GRETCHEN ANNETTE RADACK,
WILLIAM FRANKLIN REDCAY,
WALTER DANIEL RHOADS,
KATHRYN MARIE RYAN,
PAUL JASPER SANDERS,
LYMAN CYRUS SHREVE,
JONAS TUMAN,
JOSÉ ANDRÉS VILLALON.

DEGREES CONFERRED PRO MERITO.

WEDNESDAY, JUNE 21, 1911.

A. DEGREES IN ARTS.

I. MASTER OF ARTS.

ELBERT LITTLE BLAKESLEE,
CHARLES LUCAS BROMLEY,
EDWARD CARROLL CONDUCT,
CHARLES CARPENTER FRIES,
MAURICE FRANK GOLDSMITH,
RACHEL ALVERDA KANARR,

GEORGE WASHINGTON KERSCHNER,
V. INEZ MAPLEDSEN,
ALLEN GERALD RITTER,
MILTON WILLIAM SHREVE,
ANTHONY STEINHILPER.
ALFRED MATTHEWS WHITBY.

II. BACHELOR OF ARTS.

MARC LUTHER BALDWIN,
JACOB KREIDER BOWMAN,
KATHARINE VIRGINIA BRONSON,
KATHARINE GRAY CARPENTER,
VERA ZULEIKA COBER,
NELSON KENNEDY CROSSMAN,
JOSEPH LESLIE CROWELL,
HELEN WINIFRED CURE,
MARGARET CURTIS,
ROY SIGNOR DAUBERT,
NORA ELIZABETH DODSON,
MERNA JULIA GIFFIN,

MATILDA YOUNG GOLDING,
FRANK THOMAS HAMILL
(Jurisprudence),
CHARLES HUNTER HEACOCK,
MARY JAMESON,
ELIZABETH SIMPSON KATES,
FRED MACALLISTER,
EVELYN HOPE MCCASKIE,
LEROY MACFARLAND,
LAURA ELLEN MCGANN,
FRANK CLARENCE MCNAIR,
DANIEL HENRY NESTOR.

BACHELOR OF ARTS—Continued

NORMAN GOULD OLIVER,	LYMAN CYRUS SHREVE
ELLIS CLYDE PERSING,	(Jurisprudence),
HESTER ELLEN PYLES,	JONAS TUMAN
GRETCHEN ANNETTA RADACK,	(Jurisprudence),
NICHOLAS WHITMAN ROSENBERG	JAMES ARTHUR TYSON
(Jurisprudence),	(Jurisprudence),
RUTH SUMMERS SAFFORD,	HARRY REID WALTMAN
PAUL JASPER SANDERS,	(Jurisprudence),
JAMES WESLEY SHIPE,	VERNA AMANDA WHITAKER.

III. BACHELOR OF PHILOSOPHY.

HARRY S. BOURNE,	HERBERT SPENCER LLOYD,
GRACE BUCHANAN COBB,	ROY ALLEN LONG,
FRANK GARFIELD DAVIS,	SARA ELLEN MEYER,
MORRIS VICTOR HUYETTE,	VIOLET DOUGLAS NISBET,
RAYMOND MINER KENDALL,	DORA MEACHAM RAYMOND,
	ROBERT DEAN SISSON.

*B. DEGREES IN SCIENCE.**I. THE SECOND DEGREE IN GENERAL SCIENCE.*

GEORGE BAILEY HARRIS,	WILLIAM CARPENTER KELLEY,
GEORGE WILLIAM HAWK,	CASIMIR E. PERRIER,
	ALBERT OGDEN VORSE.

II. FIRST DEGREE IN GENERAL SCIENCE.

GROVER NEVIN BROWN,	NORMAN BLAIR McANULTY,
HARRY RANKIN COULSON,	HELEN BROWN McCLURE,
LESTER ABRAHAM HARRIS,	HAROLD McCLURE NEFF,
SAMUEL LEVI HANAWALT,	ELEANOR GRAHAM RAUP,
EARL EDWARD HINMAN,	KATHRYN MARIE RYAN,
EDWARD LEISERING HOWELL,	HELEN ANNE CLARK SCOTT,
JOHN KASE,	PAUL CLINTON SNYDER,
JULIA ALLEN KRAMER,	BENJAMIN RUSSELL THATCHER,
	JOHN WEBSTER TRAUGER.

III. THE FIRST DEGREE IN BIOLOGICAL SCIENCE.

WOODS FREDERICK DERE,	FREDERICK BRYTON LITTLE,
FRANKLIN JOSEPH GRONDE,	JOHN HERBERT WAITE.

IV. THE FIRST DEGREE IN CHEMICAL SCIENCE.

WILLIAM NEIL BAKER,	JOHN RAY KEISER,
ARTHUR THOMAS BAUMER,	EDGAR AMBROSE SNYDER,
ALLAN MANCHESTER FITCH,	HOWARD WARNER STARKWEATHER.

V. THE FIRST DEGREE IN CIVIL ENGINEERING.

ELMER MATLACK APP,	WILLIAM MCCULLEN,
JOHN HERBERT ARNOLD,	CLARENCE KEISER PUGH,
WALTER WILLIAM DUFF,	WILLIAM FRANKLIN REDCAY,
HAROLD L. HUNTER,	WALTER DANIEL RHOADS,
CHARLES WYANT KRAMER,	EDGAR ANDREW SABLE,
CHARLES LOSE, JR.,	FRED WILLIAM SMALL,
CHARLES LOVELAND, JR.,	HARRY LEE SMITH,
WALTER HERTZ MANN,	JOSÉ ANDRES VILLALON.

VI. THE FIRST DEGREE IN ELECTRICAL ENGINEERING.

CHARLES NORMAN BRUBAKER,	JOHN CLARENCE HILBISH,
RAYMOND CALEB DECKER,	ANDREW JOHN HUSTON,
ARTHUR CLAY FAIRCHILD,	JOHN ORAM LYTE ROSER,
STUART WILLIAM SWEET.	

COMMENCEMENT ADDRESSES.

Baccalaureate Sermon.....	THE PRESIDENT
Sermon, Education Society.....	A. LINCOLN MOORE, D.D.
Address before the Alumni Association.....	LINCOLN HULLEY, LL.D.
Poem before the Alumni Association....	WILLIAM E. MARTIN, L.H.D.
Annual Address.....	GEORGE E. HORR, D.D., LL.D.
Commencement Address.....	THE PRESIDENT

ALUMNI ASSOCIATIONS.

The General Alumni Association.

President, GEORGE WHITMAN, D.D., Buffalo, N. Y.

Secretary, PROF. GUIDO CARL LEO RIEMER, PH.D., Lewisburg.

The Alumni Club of Philadelphia.

President, HERBERT F. HARRIS, A.M., LL.B., Camden, N. J.

Secretary, EDWIN L. NESBIT, M.D., Bryn Mawr.

The Alumni Club of New York City.

President, T. A. K. GESSLER, D.D., New York City.

Secretary, ANDREW GREGG LOOMIS, A.B., LL.B., New York City.

The Alumni Club of Pittsburgh.

President, HARRY B. WASSELL, A.B., Pittsburgh.

Secretary, ELKANAH B. HULLEY, SC.B., Pittsburgh.

The Alumni Club of Chicago.

President, A. R. E. WYANT, PH.D., Chicago.

Secretary, JOSEPH C. HAZEN, PH.B., Chicago.

The Alumni Club of Northeastern Pennsylvania.

President, WILLARD MAINE BUNNELL, A.B., ESQ., Scranton.

Secretary, JOHN S. WRIGHTNOUR, D.D., Scranton.

The Alumni Club of Harrisburg.

President, JOHN C. NISSLEY, A.M., ESQ., Harrisburg.

Secretary, HARVEY F. SMITH, M.D., Harrisburg.

The Alumni Club of Washington City.

President, HENRY H. BLISS, A.M., ESQ., Washington, D. C.

Secretary, JOHN C. HOSTETTER, Washington, D. C.

The Alumni Club of Central Pennsylvania.

President, JUDGE T. J. BALDRIDGE, Hollidaysburg.

Secretary, S. F. FORGEUS, D.D., Huntingdon.

The Alumni Club of Williamsport.

President, PROF. PERCY M. BULLARD, A.B., Williamsport.

Secretary, HARRY CHESTER FITHIAN, A.M., ESQ., Williamsport.

The Alumni Club of Lewisburg.

President, LEROY T. BUTLER, Lewisburg.

Secretary, LEO L. ROCKWELL, Lewisburg.

The Alumni Club of Sunbury.

President, GEORGE EDWARD DEPPEN, A.B., ESQ.

Secretary, CULLEN FRAZER SHIPMAN, A.B., ESQ.

NAMES OF STUDENTS.

GRADUATE STUDENTS.

NAME.	MAJOR SUBJECT.	RESIDENCE.
PAUL JAMES ABRAHAM, SC.B.,	<i>Jurisprudence.</i>	Wilkinsburg
HARRY FRANCIS BAILEY, SC.B.,	<i>Science.</i>	Monongahela
MARC LUTHER BALDWIN, A.B.,	<i>Latin.</i>	Philippi, W. Va.
JOHN CHARLES BANK, E.E.,	<i>Engineering.</i>	Newark, N. J.
IRVIN ALBERT BARTHOLEMEW, SC.B.,	<i>Engineering.</i>	Nyssa, Oregon
ELBINA LAVINIA BENDER, A.B.,	<i>Literature.</i>	Lewisburg
MARSHALL LEON BENN, SC.B.,	<i>Science.</i>	Coudersport
MINNIE ELIZABETH BROBST, A.B.,	<i>Latin.</i>	Scottdale
KATHARINE DILL BROWN, SC.B.,	<i>Mathematics.</i>	Philadelphia
PETER GARFIELD COBER, A.B.,	<i>Jurisprudence.</i>	Wilkinsburg
ANSLEY BAILEY CLAYPOOLE, A.B.,	<i>Philosophy.</i>	Chester
CLYDE WILLIAM CRANMER, PH.B.,	<i>Biology.</i>	Williamsport
NEWTON CROMWELL FETTER, JR., A.B.,	<i>Philosophy.</i>	Rochester, N. Y.
FRANK HERMAN FRITZ, A.B.,	<i>History.</i>	Wilkes-Barre
WILLIAM HAYES GATEHOUSE, A.B.,	<i>History.</i>	Kitzmiller, Md.
FRANK KEMP GIBSON, A.B.,	<i>Philosophy.</i>	Rochester, N. Y.
DAVID ALBERT GREEN, SC.B.,	<i>Biology.</i>	Lock Haven

NAME.	MAJOR SUBJECT.	RESIDENCE.
JOHN WESLEY HALLIWELL, A.B., <i>Language.</i>		Sharon, Conn.
FRANK THOMAS HAMILL, A.B., <i>Jurisprudence.</i>		Ligonier
CLARA ELEANOR HARMAN, A.B., <i>Literature.</i>		Montoursville
DAVID JACKSON HAWK, SC.B., <i>Science.</i>		Philadelphia
JOSEPH WELLS HENDERSON, A.B., <i>Jurisprudence.</i>		Montgomery
EARL EDWARD HINMAN, SC.B., <i>Science.</i>		Bellefonte
ELMER AZIMA HUMMEL, A.B., <i>Science.</i>		Mifflintown
JOHN FARL HUMMER, SC.B., <i>Biology.</i>		Pottdsam, N. Y.
MORRIS VICTOR HUYETTE, PH.B., <i>Geology.</i>		Reading
FRANK MURRAY JENNER, PH.B., <i>Mathematics.</i>		Waterloo, N. Y.
HENRY S. JONES, PH.B., <i>Pedagogy.</i>		Plymouth
LEON ELLISON JONES, E.E., <i>Engineering.</i>		Scotia, N. Y.
RAYMOND MINER KENDALL, PH.B., <i>Science.</i>		Philadelphia
ONESIMUS GEORGE LANGFORD, A.B., <i>History.</i>		Chester
HERBERT SPENCER LLOYD, PH.B., <i>History.</i>		Lorain, Ohio
ROBERT BRUCE MACKEY, PH.B., M.D., <i>Science.</i>		Waverly
JOSEPH CIPRIANO MACRO, A.B., <i>Jurisprudence.</i>		New York City
CHARLES RICHARD MALLERY, A.B., <i>Jurisprudence.</i>		Altoona
CHARLES STEPHEN MARSH, SC.B., <i>Pedagogy.</i>		Saltsburg
JOHN HENRY MATHIAS, PH.B., <i>Philosophy.</i>		Rochester, N. Y.
WILLIAM McCULLEN, C.E., <i>Engineering.</i>		Philadelphia

NAME.	MAJOR SUBJECT.	RESIDENCE.
SARA ELLA MEYER, PH.B.,	<i>History.</i>	Rebersburg
JENNIE FREDA MOHRING, A.B.,	<i>Philosophy.</i>	Johnsonburg
MARY MONTFORT MOLL, A.B.,	<i>English.</i>	Mahanoy City
ROBERT BRUCE MORRIS, PH.B.,	<i>Philosophy.</i>	Philadelphia
ANNA ELIZABETH NOAKER, SC.B.,	<i>Mathematics.</i>	Spring Valley, Ill.
HELENA MAE OLDS, PH.B.,	<i>German.</i>	Manasquan, N. J.
FRANK HALFPENNY PAINTER, PH.B.,	<i>History.</i>	Jersey Shore
WILLIAM WALLACE PORTSER, C.E.,	<i>Engineering.</i>	Clayton, Del.
WILLIAM WESLEY RAKER, SC.B.,	<i>Economics.</i>	Muncy
STANLEY HERBERT ROLFE, A.B.,	<i>History.</i>	Nanticoke
CHARLES STILLWELL ROUSH, A.B.,	<i>Philosophy.</i>	Rochester, N. Y.
GEORGE BARTLEY SCHROYER, C.E.,	<i>Engineering.</i>	Lancaster
JACOB HARRY SCHUCH, C.E.,	<i>Engineering.</i>	Cogan Station
CLARA SENORA SHELLHAMMER, SC.B.,	<i>Science.</i>	Ann Arbor, Mich.
JAMES WESLEY SHIPE, A.B.,	<i>Economics.</i>	Bristol
JAMES HARRY SHOEMAKER, SC.B.,	<i>Literature.</i>	Slippery Rock
REUBEN WELTY SHRUM, SC.B.,	<i>English.</i>	Irwin
STANTON REINHART SMITH, SC.B.,	<i>Biology.</i>	Philadelphia
PAUL CLINTON SNYDER, SC.B.,	<i>Biology.</i>	Mifflinburg
WALLACE JAMES SNYDER, SC.B.,	<i>Chemistry.</i>	Edinboro
ROBERT MCCURDY STEELE, PH.B.,	<i>Language.</i>	Clarion

NAME.	MAJOR SUBJECT.	RESIDENCE.
ELIZABETH STEPHENSON, A.B.,	<i>Pedagogy.</i>	Lewisburg
MARTHA JANE THOMAS, PH.B.,	<i>German.</i>	Frostburg, Md.
LOUIS JAMES VELTE, A.B.,	<i>History.</i>	Chester
KATHALYN VON HOUTON VOORHIS, SC.B.,	<i>Science.</i>	Ann Arbor, Mich.
CHARLES CARROLL WAGNER, SC.B.,	<i>Chemistry.</i>	Madison, S. D.
AMELIA MARGARET WENSEL, A.B.,	<i>German.</i>	Brockport, N. Y.
MAX CONRAD WIAINT, A.B.,	<i>History.</i>	Rochester, N. Y.
FRANK LANDIS YOST, A.B.,	<i>Language.</i>	Milton
JOHN ADAM YOUNG, PH.B.,	<i>Political Science.</i>	Lock Haven
HEBER WILKINSON YOUNGKEN, A.B.,	<i>Biology.</i>	Philadelphia
IRVIN WELLINGTON ZIEGLER, SC.B.,	<i>Literature.</i>	Oley

Graduate Students, 70.

THE SENIOR CLASS

CLASS OF 1912.

NAME.	RESIDENCE	ROOM.
MINNIE M. ANDREWS,	<i>North Girard.</i>	Women's College
EARL RUDOLPH BARTHOLOMEW,	<i>Lewisburg,</i>	Market Street
HARRY STEVENS BASTIAN,	<i>Montgomery.</i>	No. 53, East College
NELLIE RUTH BERIE,	<i>Lewisburg.</i>	Lewisburg
HENRY HARMON BLISS, JR.,	<i>Washington, D. C.</i>	No. 76, West College
CLARENCE BLAKE BREWER,	<i>Susquehanna.</i>	No. 45, West College
ALBERTA LILLIAN BRONSON,	<i>Girardville.</i>	Women's College
ADA ETHEL BROOKS,	<i>Wellsboro.</i>	Women's College
MAZE RITTER CALLAHAN,	<i>Montoursville.</i>	Women's College
CECIL RUSSELL CHILDS,	<i>Truxton, N. Y.</i>	Women's College
FLORENCE MAY CLUM,	<i>Scranton.</i>	Women's College
LLOYD LANGDON COIL,	<i>Hopbottom.</i>	No. 30, East College
JAMES DANIEL COLLISON,	<i>Elizabeth.</i>	No. 1, East Wing
ALEXANDER CLEVELAND CONNER,	<i>Pittsburgh.</i>	St. George Street
ELWOOD HARRIS COURTER,	<i>Basking Ridge, N. J.</i>	No. 4, West Wing
RALPH FREDERICK DAVENPORT,	<i>Plymouth.</i>	No. 25, East Wing
STANLEY POWELL DAVIES,	<i>Conshohocken.</i>	No. 9, East Wing
OLIVER SAMUEL DELANCEY,	<i>Blairsville.</i>	No. 58, East College
EDWARD PATCHIN DUFTON,	<i>Clearfield.</i>	No. 4, West College

NAME.	RESIDENCE	ROOM.
WALTER SAMUEL EISENMENGER,	<i>Warrensville.</i>	No. 16, West Wing
WILLIAM WEBSTER EISTER,	<i>Lewisburg.</i>	Brown Street
HARRY BENNETT ENGLISH,	<i>Wyoming.</i>	No. 17, East Wing
HARRY SCHEIDY EVERETT,	<i>Slatington.</i>	No. 22, West Wing
HOWARD FARQUHAR,	<i>West Brownsville.</i>	No. 85, West College
JAY HUDSON FLECKENSTINE,	<i>Milton,</i>	Milton
VERA MILDRED FROST,	<i>Brookville.</i>	Women's College
WILLIAM ALFRED GOEHRING,	<i>Zelienople.</i>	No. 78, West College
CAREY WATROUS HARDING,	<i>Athens.</i>	No. 16, East Wing
COLEMAN JOHN HARRIS,	<i>Lewisburg.</i>	University Avenue
JAMES PARDON HARRIS,	<i>Lewisburg.</i>	University Avenue
LEONE ALMARE HAVICE,	<i>Montgomery.</i>	Montgomery
FRANK RAHN HEAN,	<i>Harrisburg.</i>	St. George Street
EVA HIMMELREICH,	<i>Lewisburg.</i>	South Seventh Street
RUSSELL CONWELL HOFFMAN,	<i>Cheltenham.</i>	No. 19, West Wing
DALE DAVIS HOLLENBAUGH,	<i>Williamsport.</i>	St. George Street
FREDERICK IGLER,	<i>Scranton.</i>	No. 50, East College
HOWARD JOHNSON,	<i>Wilmington, Del.</i>	No. 24, East Wing
ALBERT AUGUST JORDAN,	<i>Philadelphia.</i>	No. 41, East College
EMMA ELIZABETH KEISER,	<i>Mt. Carmel.</i>	Women's College
FREDERICK LANGE, JR.,	<i>Audubon, N. J.</i>	No. 6, West Wing

NAME.	RESIDENCE	ROOM.
WILLIAM ANDERSON LESHER,	<i>Benton.</i>	No. 93, West College
HELEN LEVEGOOD,	<i>Jersey Shore.</i>	Women's College
LYMAN LLEWELLYN LISTER,	<i>Trenton, N. J.</i>	No. 54, East College
OLIVE MARIE LONG,	<i>Mill Hall.</i>	Women's College
DAVID A. MCNEAL,	<i>Canton.</i>	No. 20, West Wing
ROBERT WILLIAM MEYER,	<i>Rebersburg.</i>	St. George Street
WILLIAM HENRY MILLER,	<i>Greenburr.</i>	No. 16, East Wing
HAROLD WILLIAM MUSSER,	<i>Lewisburg.</i>	South Third Street
GEORGE EDWARD O'BRIEN,	<i>Clearfield.</i>	No. 21, West College
MERTON MILES OGDEN,	<i>Leonta, N. Y.</i>	No. 56, East College
EDWARD ROY PARKE,	<i>Troy.</i>	No. 60, East College
JOHN WATSON PEOPLES,	<i>Jersey Shore.</i>	St. George Street
PEARL IRENE REAM,	<i>Lewisburg.</i>	South Fifth Street
GEORGE FRANCIS REITER,	<i>Muncy.</i>	No. 16, East Wing
EVA MAY RITTENHOUSE,	<i>Granville.</i>	Women's College
JOHN HENRY RUFUS ROBERTS,	<i>Reading.</i>	No. 43, East College
LEWIS PERRINE ROBINSON,	<i>Danville.</i>	St. George Street
FREDERICK VALENTINE ROCKEY,	<i>Lebanon.</i>	No. 50, West College
DAVIS CLIFFORD RUTH,	<i>Malvern.</i>	No. 84, East College
HELEN LAURA RUTH,	<i>Hanover.</i>	Women's College
PAUL DANIEL SCHREIBER,	<i>Allentown.</i>	No. 21, West College

NAME.	RESIDENCE	ROOM.
ALICE PERAULT SCOTT,	<i>Milton.</i>	Milton
ROBERT ROWE SELLERS,	<i>Emmitsburg, Md.</i>	No. 120, East College
DAVID YEAKEL SIESHOLTZ,	<i>Alburtis.</i>	No. 48, East College
SUSAN CAROLINE SNYDER,	<i>Allentown.</i>	Women's College
LAWRENCE EMERSON SPROUT,	<i>Picture Rocks.</i>	No. 90, East College
ROBERT AUGUSTUS STOUGHTON,	<i>Lewisburg.</i>	Market Street
RUBY VANNINKA STUCK,	<i>Tower City.</i>	Women's College
HARRISON SCHUYLER SWEET,	<i>Utica, N. Y.</i>	St. George Street
WILLIAM GLENN TEGTMEIER,	<i>Conshohocken.</i>	No. 9, East Wing
JESSE ROY TYSON,	<i>Norristown.</i>	No. 27, West College
ARTHUR DAVID WALTZ,	<i>Hepburnville.</i>	St. George Street
SUZANNA EMMA WEDDELL,	<i>Philadelphia.</i>	South Sixth Street
VIOLET LOUISE ELEANOR WETTERAU,	<i>Hazelton.</i>	Women's College
DANIEL MAYNARD WISE,	<i>South Williamsport.</i>	No. 14, East Wing
OSCAR WOLF,	<i>Pforzheim, Germany.</i>	No. 86, West College

Seniors, 76.

THE JUNIOR CLASS.

CLASS OF 1913.

NAME.	RESIDENCE.	ROOM.
JOHN NEWTON ARNDT,	<i>Milton.</i>	Milton
JOLETTA MAY ARTHUR,	<i>Jersey City, N. J.</i>	Women's College
HELEN KING BARTOL,	<i>Lewisburg.</i>	University Avenue
BRIGHT WILKES BECK,	<i>Cressona.</i>	No. 44, East College
CHARLES BAKER BERNHART,	<i>Lewisburg.</i>	North Second Street
JOHN RALPH BOGERT,	<i>Norristown.</i>	No. 60, West College
RICHARD HANSBER BOWLING, JR.,	<i>Norfolk, Va.</i>	No. 23, West Wing
JOHN WESLEY BRESSLER,	<i>Slatington.</i>	No. 22, West Wing
MARY MARGARET BROWN,	<i>Braddock.</i>	South Front Street
EDWIN CHARLES BRUSH,	<i>Jackson.</i>	No. 20, East Wing
HUGH MAX BULLARD,	<i>Newberry.</i>	No. 64, West College
HELEN WATSON DAVIS,	<i>Shiloh, N. J.</i>	Women's College
MILES ELTON DEAN,	<i>Altoona.</i>	No. 73, East College
DAVID FORREST DUNKLE,	<i>Lewisburg.</i>	South Fifth Street
WALTER HERBERT EDWARDS,	<i>Wilmington, Del.</i>	No. 49, East College
FAYETTE CLINTON ESHELMAN,	<i>Franklin.</i>	St. George Street
ELMER ELLSWORTH FAIRCHILD,	<i>Lewisburg.</i>	Lewisburg
WALTER DAYTON FARLEY,	<i>Lewisburg.</i>	South Fourth Street
JOHN DIETREICH WITTICH FETTER,	<i>Barnesboro.</i>	No. 118, East College

NAME.	RESIDENCE.	ROOM.
MARIAN FISCHLER,	<i>Wellsboro.</i>	Women's College
HOWARD VOELKER FISHER,	<i>Tamaqua.</i>	St. George Street
CHARLES ADAM FRYLING,	<i>Sunbury.</i>	No. 17, West Wing
HAZEL ETTA GALLOWAY,	<i>Lewisburg.</i>	North Fifth Street
MARWOOD BENJAMIN GLOVER,	<i>Collingdale.</i>	No. 12, East College
HOWARD MARSHALL GOEHRING,	<i>Zelienople.</i>	No. 78, West College
JAMES BOWEN GRIFFITH,	<i>Waverly, Iowa.</i>	No. 111, East College
MAX GROSSMAN,	<i>Mt. Carmel.</i>	No. 29, West College
GEORGE FREEMAN HAINES,	<i>Winfield.</i>	No. 17, West Wing
BENJAMIN SOLOMON HARRIS,	<i>Lewisburg.</i>	Market Street
ORWILL VAN WICKLE HAWKINS,	<i>Freneau, N. J.</i>	St. George Street
RUTH TUSTIN HEINSLING,	<i>Altoona.</i>	Women's College
CARLTON BALLARD HOOKER,	<i>Troy.</i>	No. 87, West College
ETHEL MARGARET HOTTENSTEIN,	<i>Milton.</i>	Milton.
MARY JANE IREY,	<i>Danville.</i>	South Fourth Street
LOGAN EARL JACKSON,	<i>Williamsport.</i>	No. 18, West Wing
ALEXIS WOOLMAN KEEN,	<i>Salem, N. J.</i>	No. 28, West Wing
HARRY XING KELLY,	<i>Brookville.</i>	No. 9, West Wing
FRANK LLOYD KERSTETTER,	<i>Nanticoke.</i>	No. 53, West College
PERCY POWERS KINNAMAN,	<i>Washington, N. Y.</i>	No. 6, West Wing
JOHN MACCULLOCH,	<i>Eleanora.</i>	No. 21, East College

NAME.	RESIDENCE.	ROOM.
MINNIE ETHEL MAYNARD,	<i>Williamsport.</i>	Women's College
JOSEPH LESLIE McKEAGUE,	<i>Millville, N. J.</i>	No. 47, East College
GEORGE MIDDLETON,	<i>Edwardsville.</i>	No. 25, East Wing
MARY FLORENCE MITCHELL,	<i>Penn's Grove, N. J.</i>	Women's College
ANTHONY JAY MURRAY,	<i>Scranton.</i>	No. 40, West College
CLAYTON ELMER PHILLIPS,	<i>Cressona.</i>	No. 88, East College
GEORGE THURMAN PIERSOL,	<i>Honey Brook.</i>	No. 61, West College
MARY DELINDA POTTER,	<i>Center Hall.</i>	Women's College
GEORGE WILLIAM POTTS,	<i>Greensburg.</i>	St. George Street
HARTLEY CARR POWELL,	<i>Salem, N. J.</i>	No. 42, East College
ALBERT NORMAN REDELIN,	<i>Freeland.</i>	St. George Street
EARL MORGAN RICHARDS,	<i>Reading.</i>	No. 10, East Wing
LEONARD ANTHONY RICHARDSON,	<i>Elizabeth, W. Va.</i>	No. 8, West Wing
ROBERT LEVI ROOKE,	<i>Winfield.</i>	No. 101, East College
CHARLES LOY SANDERS,	<i>Mifflinburg.</i>	Mifflinburg
CLAY SHOEMAKER SANDERS,	<i>Mifflinburg.</i>	Mifflinburg
VICTOR SCHMID,	<i>Philadelphia.</i>	No. 90, West College
HAROLD AUGUSTUS SHAFFER,	<i>Lewisburg.</i>	South Second Street
JOSEPH PARDOE SHEARER,	<i>Milton.</i>	Milton
EDWARD WETHERELL SMITH,	<i>Salem, N. J.</i>	No. 108, East College
HENRY GRIGGS WESTON SMITH,	<i>Malvern.</i>	No. 15, East Wing

NAME.	RESIDENCE.	ROOM.
HENRY SMITH STEELE,	<i>New Alexandria.</i>	No. 103, East College
PAUL LOWERY STEIN,	<i>Lewisburg.</i>	Market Street
AMOS MILES STETLER,	<i>Middleburg.</i>	No. 112, East College
RALPH AMOS STILL,	<i>Danville.</i>	No. 104, East College
LESLIE WELLINGTON STOUT,	<i>Audubon, N. J.</i>	No. 2, East College
RALPH LEE TALBOT,	<i>Martins Ferry, Ohio.</i>	St. George Street
SAMUEL PAUL TEAMER,	<i>Malvern.</i>	St. George Street
LOUIS ADAM WALDNER,	<i>Ashland.</i>	No. 61, East College
BOYD HENRY WALTER,	<i>Kittanning.</i>	Academy
MARGARET CELESTE WEDDELL,	<i>Dover, Del.</i>	Women's College
JOHN SHERMAN WELCHONS,	<i>Falls Creek.</i>	No. 13, East Wing
ALBERT BACON WINTER,	<i>Zelienople.</i>	No. 76, West College
HERMAN EMERSON ZEHNER,	<i>Tamaqua.</i>	No. 32, East College
	Juniors, 74.	

THE SOPHOMORE CLASS.

CLASS OF 1914.

NAME.	RESIDENCE.	ROOM.
WALTER THOMAS AFRICA,	<i>Huntingdon.</i>	No. 34, West College
DALE REESE ANGSTADT,	<i>Lewisburg.</i>	Lewisburg
RAYMOND LANCE APGAR,	<i>Trenton, N. J.</i>	No. 24, West Wing
CHARLES JACOB APPEGATE,	<i>Catasauqua.</i>	No. 17, East Wing
EARLE BUDD ARMSTRONG,	<i>Paulsboro, N. J.</i>	No. 12, East Wing
NEVIN GEORGE BACHMAN,	<i>Kempton.</i>	No. 93, East College
H. WALTER BAKER,	<i>Lancaster.</i>	No. 9, East College
RALPH EMERSON BELL,	<i>Munhall.</i>	No. 53, West College
DANIEL FLOYD K. BERTOLETTE,	<i>Manatawney.</i>	No. 28, East Wing
CHENEY KIMBER BOYER,	<i>Homestead.</i>	No. 20, East Wing
LOUIS HENRY BOYER,	<i>Cressona.</i>	No. 40, East College
LOIS MAY BROWN,	<i>Lewisburg.</i>	Lewisburg
HARRY EARLE CAMPBELL,	<i>Shunk.</i>	No. 65, West College
PERRY AQUILA CARIS,	<i>Tylersville.</i>	No. 21, East Wing
CLARENCE BARNABAS CARVER,	<i>Carmel, N. Y.</i>	No. 79, East College
FRIEDMAN HOLMES CATHRALL,	<i>West Pittston.</i>	No. 33, East College
CHARLES ELLSWORTH COLEMAN,	<i>Boonton, N. J.</i>	No. 14, East College
JAMES RUSSELL COOK,	<i>Trenton, N. J.</i>	No. 35, East College
OLIVE MANSFIELD COOPER,	<i>Cortland, N. Y.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
DAYTON THOMAS CORSON,	<i>Paulsboro, N. J.</i>	No. 12, East Wing
SAMUEL HENRY COULTER,	<i>Lamney, Ireland.</i>	No. 94, East College
ROBERT JOHN CRANE,	<i>Katonah, N. Y.</i>	No. 80, East College
WILLIAM BRITTON CRAWFORD,	<i>South Brownsville.</i>	No. 27, West College
JOHN RUSSELL CRISWELL,	<i>Sharpsburg.</i>	No. 40, West College
RACHEL MIRIAM DAVIS,	<i>Woodstown, N. J.</i>	Women's College
HARRY DEWIRE,	<i>Winfield.</i>	Winfield
HAROLD MACILVAINE DORRELL,	<i>Alloway, N. J.</i>	No. 77, East College
RUTH HORTENSE EDWARDS,	<i>Williamsport.</i>	Women's College
HELEN HORTENSE EEDE,	<i>Ballston Spa, N. Y.</i>	Women's College
MINNIE IOLA ETZWEILER,	<i>Lewistown.</i>	Women's College
RALPH WILLIAM EVERALL,	<i>Sharon.</i>	St. George Street
WILLIAM HENRY EYSTER,	<i>Fisher's Ferry.</i>	No. 54 West College
ELLEN WOLFE FOCHT,	<i>Lewisburg.</i>	South Second Street
RAYMOND TOOT FRANCIS,	<i>Sunbury.</i>	No. 73, West College
JASPER C. FRANTZ,	<i>Friendsville.</i>	No. 1, East Wing
GUY LESTER FULLMER,	<i>Montoursville.</i>	No. 114, East College
JOHN LUKE GEHMAN,	<i>Martindale.</i>	No. 24, East Wing
EARL BALLARD GLOVER,	<i>Erie.</i>	No. 92, West College
HANNAH REEVES GLOVER,	<i>Haddonfield, N. J.</i>	Women's College
JOSHUA ROBERT GOLIGHTLY,	<i>Wilkes-Barre.</i>	No. 55, West College

NAME.	RESIDENCE.	ROOM.
ALBERT DONALD GRAY,		No. 75, West College
	<i>Altoona.</i>	
GEORGE THOMAS GROVE,		No. 78, East College
	<i>Harrisburg.</i>	
ROBERT CLARK HAGAN,		No. 31, East College
	<i>Uniontown.</i>	
FRANK RUSSELL HAMBLIN,		St. George Street
	<i>Lewisburg.</i>	
EUDORA REGINA HAMLER,		Market Street
	<i>Lewisburg.</i>	
MARIAN KATHRYN HARMAN,		Women's College
	<i>Montoursville.</i>	
WALTER WILLIAM HARRIS,		University Avenue
	<i>Lewisburg.</i>	
JOSEPH MUR HILLMAN,		No. 12, West Wing
	<i>Shamokin.</i>	
MIRIAM RUTH HOFFA,		South Fifth Street
	<i>Lewisburg.</i>	
JAMES RALPH IRWIN,		No. 14, East Wing
	<i>Schuyler.</i>	
ARTHUR RANDQUIST JOHNSON,		No. 102, East College
	<i>Erie.</i>	
DOROTHEA MARGUERITE JONES,		Women's College
	<i>Minersville.</i>	
GEORGE THOMPSON KEECH, JR.,		No. 11, East Wing
	<i>Netcong, N. J.</i>	
MILDRED RUTH KIRK,		South Front Street
	<i>Clearfield.</i>	
WILMA HARRIETTE SPEERS KNAPP,		Women's College
	<i>Hawley.</i>	
MARY ANNA KUNKLE,		Lewisburg
	<i>Lewisburg.</i>	
RALPH WARREN KUNKLE,		Lewisburg
	<i>Lewisburg.</i>	
HENRY GEORGE KUYL,		No. 30, West Wing
	<i>Paterson, N. J.</i>	
LELAND PROBASCO LANING,		No. 44, West College
	<i>Bridgeton, N. J.</i>	
ERNEST OLOF LINDBERG,		No. 93, West College
	<i>Sag Harbor, N. Y.</i>	
CHARLES WALTER LOTTE,		No. 92, East College
	<i>Paterson, N. J.</i>	

NAME.	RESIDENCE.	ROOM.
WALLACE CLINE LOWTHER,	<i>Punxsutawney.</i>	No. 19, East College
LEWIS FREDERICK LYNE, JR.,	<i>Jersey City, N. J.</i>	No. 70, West College
GEORGE HUMMEL MADTES,	<i>Punxsutawney.</i>	No. 25, East College
ARTHUR SAWYER MAHONY,	<i>Passaic, N. J.</i>	No. 69, West College
SAMUEL HARRISON MARKOWITZ,	<i>Wilmington, Del.</i>	No. 29, East Wing
ROBERT RAY MCCOMBS,	<i>McClellandtown.</i>	No. 59, West College
FRANCES TERRY McNALL,	<i>Muncy.</i>	Women's College
JOHN ROSCOE McNUTT,	<i>New Bethlehem.</i>	No. 13, West Wing
CHARLES ARTHUR MOONEY,	<i>Curlsville.</i>	No. 15, West Wing
RALPH HERMAN MOORE,	<i>Slippery Rock.</i>	No. 24, East College
THOMAS EDWARD MOORE,	<i>Las Animas, Colo.</i>	No. 46, West College
HOWARD BURTON MUSSER,	<i>South Williamsport.</i>	No. 52, East College
RALPH ANDREW NEFF,	<i>Erie.</i>	No. 91, West College
WOODS MERTZ NICELY,	<i>Sunbury.</i>	No. 72, West College
RAYMOND FORD NICHOLS,	<i>Tamaqua.</i>	No. 47, West College
HELEN GRIFFIN OTT,	<i>Bridgeton, N. J.</i>	Women's College
ROBERT JOHN PARMENTER,	<i>Elmira, N. Y.</i>	No. 81, West College
HENDERSON POINTS,	<i>Bedford.</i>	No. 22, West College
HAROLD EVANS POWELL,	<i>Scranton.</i>	No. 65, West College
MARY ELLEN RACE,	<i>Oxford, N. J.</i>	South Third Street
WILLIAM DEAN READING,	<i>Franklin.</i>	St. George Street

NAME.	RESIDENCE.	ROOM.
FLORENCE ISABELLE REIMENSNYDER,	<i>Milton.</i>	Milton
WILLIAM STANLEY REITZ,	<i>Trevorton.</i>	No. 49, West College
JOHN WINTER RICE,	<i>Williamsport.</i>	No. 52, West College
EDWARD JOHN RICHARDS,	<i>Homestead.</i>	No. 21, East Wing
ROLAND WINFIELD RIGGS,	<i>Brookville.</i>	No. 13, West Wing
JESSE EARLE RILEY,	<i>Bridgeport, W. Va.</i>	No. 8, West Wing
KARL WHITMAN RIPPEL,	<i>Milton.</i>	Milton
MARY FLORENCE ROLLINS,	<i>Altoona.</i>	Women's College
CLIFFORD R. SCHENCK,	<i>Great Neck, L. I., N. Y.</i>	No. 33, West College
FRED OSCAR SCHNURE,	<i>Milton.</i>	Milton
JOHN GRANVILLE SCOUTON,	<i>Dushore.</i>	No. 31, West College
LEVI HUBBARD SHATTUCK,	<i>Wellsboro.</i>	North Third Street
MARIAN ESTHER SHIVERS,	<i>Haddonfield, N. J.</i>	Women's College
CLINTON FRANCES SNYDER,	<i>Minersville.</i>	No. 86, East College
DONALD AMOS SPROUT,	<i>Picture Rocks.</i>	No. 87, East College
HARRY SYLVESTER STAHLER,	<i>Mauch Chunk.</i>	No. 28, East Wing
RAYMOND BEAUMONT STAPLETON,	<i>Mifflinburg.</i>	Mifflinburg.
HELEN GLAZE STOUT,	<i>Milton.</i>	Milton
VICTOR FRANCIS SWENSON,	<i>Susquehanna.</i>	No. 26, West College
ALFRED SMITH VAN OSTEN,	<i>Philadelphia.</i>	No. 115, East College
HARRY BRUNGART WEAVER,	<i>Rebersburg.</i>	No. 16, West Wing

NAME.	RESIDENCE.	ROOM.
ALVIA MCGREGOR WELCHONS,	<i>Falls Creek.</i>	No. 13, East Wing
STEPHEN KUHN WELLS,	<i>Bloomsburg.</i>	No. 23, West College
PAUL RAYMOND WENDT,	<i>Williamsport.</i>	No. 88, West College
STEPHEN KNOX WHITE,	<i>Fairfield.</i>	St. George Street
NORMAN WILLMER WHITED,	<i>Hawthorne.</i>	No. 11, East Wing
EDNA ALICE WHITTAM,	<i>Chester.</i>	Women's College
CARROLL ZENAS WIGHT,	<i>Las Animas, Colo.</i>	No. 19, East Wing
JOHN FRANCIS WINKLEBLECH,	<i>Milton.</i>	Milton
FRANK BEACHAM WORRILOW,	<i>Chester.</i>	No. 20, East College
DORRANCE DANA ZINN,	<i>Philippi, W. Va.</i>	No. 82, East College
Sophomores, 113.		

THE FRESHMAN CLASS.

CLASS OF 1915.

NAME.	RESIDENCE.	ROOM.
WILLIAM ARISTA AFFRON,	<i>Sag Harbor, N. Y.</i>	No. 94, West College
JOSEPH WILLIAM ALESHOUCKAS,	<i>Great Neck, N. Y.</i>	No. 21, West Wing
ESKEL VALENTINE ANDERSON,	<i>Monessen.</i>	No. 77, West College
MARION RUTH BANCROFT,	<i>Altoona.</i>	Women's College
FLORENCE BROWN BARBER,	<i>Lewisburg.</i>	South Second Street
FRANCES FOSTER BARBER,	<i>Lewisburg.</i>	South Second Street
LESTER JUDSON BARTLETT,	<i>Lewisburg.</i>	St. George Street
JEREMIAH BUTLER BATES,	<i>Blossburg.</i>	No. 19, East Wing
MYRTLE PAULINE BAUMGARDNER,	<i>Sunbury.</i>	Sunbury
MELVILLE BEARDSLEY,	<i>Philadelphia.</i>	No. 100, East College
WARREN DALTON BELL,	<i>Williamsport.</i>	No. 25, West College
PAUL FREDERICK BENZ,	<i>Haledon, N. J.</i>	No. 30, West Wing
ISABELLE FRANCES BOND,	<i>Lewisburg.</i>	South Seventh Street
WILLIAM ELTON BOTT,	<i>Wilmington, Del.</i>	No. 15, East Wing
MABEL PAULINE BOYER,	<i>Mt. Pleasant.</i>	Women's College
EDNA GERTRUDE BRICKER,	<i>Irwin.</i>	Women's College
CHARLES WARREN BROWN,	<i>Lewisburg.</i>	Lewisburg
FRANCIS THEODORE BROWN,	<i>Lewisburg.</i>	Lewisburg
MABEL MAY BROWN,	<i>Clearfield.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
HENRY STUART BROWNELL,	<i>Williamsport.</i>	No. 80, West College
VERA CAMPBELL,	<i>Berwyn.</i>	Women's College
WILLIAM ADAM CAWLEY,	<i>Milton.</i>	Milton
KEITH ERI CHAMBERS,	<i>Tidioute.</i>	No. 23, East Wing
EDGAR TILLMAN CLAPP,	<i>Milton.</i>	No. 14, West Wing
ALBERT JOHN CLARK,	<i>Bayonne, N. J.</i>	No. 30, East Wing
EDWARD OLIVER CLARK,	<i>Bayonne, N. J.</i>	No. 30, East Wing
EDWARD BELFOUR CLINE,	<i>Saltsburg.</i>	No. 32, West Wing
ROBERT MILLER COCHRANE,	<i>Greensburg.</i>	No. 67, West College
ALBERT EDWARD COUGHANOUR,	<i>Uniontown.</i>	No. 37, East College
HOPE CRAIG,	<i>Brackenridge.</i>	Women's College
RAYMOND E. CROSS,	<i>Shohola.</i>	No. 32, West College
FRANK PETER CRUIKSHANK,	<i>Somerville, Mass.</i>	No. 24, West College
EMMA ELIZABETH DILLON,	<i>Trenton, N. J.</i>	Women's College
CLARENCE ANDREW DOYLE,	<i>Waterbury, Conn.</i>	No. 41, West College
IRA SYLVESTER DUNKLE,	<i>Lewisburg.</i>	Lewisburg
GARDNER WADE EARLE,	<i>Picture Rocks.</i>	No. 24, East Wing
HARVEY ELLSWORTH EAVENSON,	<i>West Chester.</i>	No. 15, East College
HAROLD CHARLES EDWARDS,	<i>Gouldsboro.</i>	No. 59, East College
MILTON CHARLES EMBREY,	<i>Mahanoy City.</i>	No. 29, East Wing
ARTHUR ELTON EVANS,	<i>Wilkes-Barre.</i>	No. 27, East Wing

NAME.	RESIDENCE.	ROOM.
FREDERICK HARRISON FAHRINGER,	<i>Sunbury.</i>	No. 56, West College
LUELLA FRANK,	<i>Montandon.</i>	Montandon
ELWOOD STANLEY FRYMIRE, JR.,	<i>Milton.</i>	Milton
CHARLES MICHAEL FULMER,	<i>Tamaqua.</i>	No. 83, West College
CHARLES W. GALE,	<i>Atlantic City, N. J.</i>	No. 63, West College
NELLYLOU GARDNER,	<i>Oxford, N. J.</i>	Women's College
JOSEPH FRANK GDANIEC,	<i>Mount Carmel.</i>	No. 63, East College
CARL EDWARD GEIGER,	<i>Williamsport.</i>	No. 95, West College
FLORENCE GRACE GOOD,	<i>El Dorado.</i>	Women's College
FRED ALVIN GOOD,	<i>El Dorado.</i>	No. 38, West College
PEARL ANNA GRAUL,	<i>Mount Pleasant.</i>	Women's College
FRED RAYMOND GRENINGER,	<i>Booneville.</i>	No. 23, East Wing
CLAIR GEPHART GROOVER,	<i>Lewisburg.</i>	Lewisburg
CARRIE MARY JANE GRUGAN,	<i>West Milton.</i>	West Milton
ALBERT JOSEPH HAMLIN,	<i>Philadelphia.</i>	No. 116, East College
CHALMER HARE,	<i>Huntingdon.</i>	No. 26, West Wing
ALEXANDER CLINTON HAUSE,	<i>Tamaqua.</i>	No. 48, West College
JOHN WILLIAM HEDGE,	<i>Scenery Hill.</i>	No. 55, East College
GEORGE SHIMER HEINEN,	<i>Milton.</i>	Milton
BLANCHE ELIZABETH HENDERSON,	<i>Montgomery.</i>	Women's College
GEORGE PEUTELOW HERN,	<i>Passaic, N. J.</i>	No. 51, West College

NAME.	RESIDENCE.	ROOM.
ROLAND KEILHOLTZ HOKE,	<i>Emmitsburg, Md.</i>	No. 91, East College
ROBERT P. HOPKINS,	<i>Carbondale.</i>	No. 10, East College
HUGH CHARLES HOUSER,	<i>Wellsboro.</i>	North Third Street
GEORGE ALLISON IRLAND,	<i>Lewisburg.</i>	Market Street
WAYNE BENNETT JEFFERIS,	<i>Philadelphia.</i>	No. 113, East College
ROLAND MONROE JONES,	<i>Trevorton.</i>	No. 49, West College
PEARL I. KAWEL,	<i>Sunbury.</i>	Sunbury
WILLMON KEISER,	<i>Mount Carmel.</i>	No. 65, East College
HAROLD RICHARD KELLY,	<i>Titusville.</i>	No. 69, East College
BENJAMIN WINTERS LAIDLAW,	<i>Orange, N. J.</i>	No. 4, East College
RAMONA LENINGTON,	<i>Scranton.</i>	Women's College
RUTH MARGUERITE LENINGTON,	<i>Scranton.</i>	Women's College
LEDA ALICE MACFARLAND,	<i>Milton.</i>	Milton
ESTHER MABEL MCCORMICK,	<i>Tyrone.</i>	Women's College
WALTER GALLOWAY MEEK,	<i>Allenwood.</i>	Allenwood
MARY ELIZABETH MEHL,	<i>Sharpsville.</i>	Women's College
FRED FELTON MELLOTT,	<i>Everett.</i>	No. 29, West Wing
GILBERT JUDSON MEREDITH, JR.,	<i>Felton, Del.</i>	No. 19, East Wing
CARLTON ALFRED MICHAEL,	<i>Factoryville.</i>	No. 57, West College
EDNA AMELIA MILLER,	<i>Williamsport.</i>	Williamsport
WINIFRED WILBUR MILLER,	<i>Bridgeton, N. J.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
GEORGIANA MOORE,	<i>Altoona.</i>	Women's College
WILLARD LESTER MOYER,	<i>Muncy.</i>	No. 98, East College
GEORGE WALTER MUFFLEY,	<i>Turbotville.</i>	No. 35, West College
HAROLD STANLEY MYATT,	<i>Philadelphia.</i>	No. 28, West Wing
WILBUR SECHLER NOLL,	<i>Lewisburg.</i>	South Fourth Street
ROBERT ELSMERE OBERDORF,	<i>Sunbury.</i>	Sunbury
JESSIE MARGUERITE OSWALT,	<i>Altoona.</i>	Women's College
LUCILE ELIZABETH OWENS,	<i>Lewisburg.</i>	South Third Street
EDWARD WEDDELL PANGBURN,	<i>Elizabeth.</i>	No. 74, West College
WILLIAM LOUIS PARK,	<i>Montandon.</i>	Montandon
GRANVILLE PATTON PATTERSON,	<i>Ashland.</i>	No. 70, East College
ETHEL ELIZABETH PETERSON,	<i>Penn's Grove, N. J.</i>	Women's College
ROBERT PREISKEL,	<i>Passaic, N. J.</i>	No. 51, West College
ELLIS LAWRENCE RAESLY,	<i>Wilkes-Barre.</i>	No. 31, East Wing
HELEN BLAIR REED,	<i>Milton.</i>	Milton
JOHN BENJAMIN RISHEL,	<i>Hughesville.</i>	No. 52, West College
EDGAR LLOYD ROGERS,	<i>Nittany.</i>	No. 32, East Wing
HAROLD ARTHUR RUNK,	<i>Harrisburg.</i>	No. 3, East College
DWITE HAYDEN SCHAFFNER,	<i>Falls Creek.</i>	No. 9, West Wing
WILLIAM HILLIARD SCHUYLER,	<i>Milton.</i>	Milton
CHARLES EDGAR SELLERS,	<i>Emmitsburg, Md.</i>	No. 117, East College

NAME.	RESIDENCE.	ROOM.
RUSSELL CONWELL SHIPMAN,	<i>Sunbury.</i>	No. 36, West College
JAMES LEO SHOEMAKER,	<i>Norristown.</i>	No. 2, East Wing
ELLIS SARGEANT SMITH,	<i>Sayre.</i>	No. 11, West Wing
MUNFORD SMITH,	<i>Munhall.</i>	No. 37, West College
OMAR HARRISON SMITH,	<i>Blairsville.</i>	No. 95, East College
GRACE MARGUERITE STEPHENSON,	<i>Lewisburg.</i>	Lewisburg
GEORGE SALVADORE STEVENSON,	<i>Vineland, N. J.</i>	No. 19, West Wing
MIRIAM JUSTINIA STRICKLER,	<i>Lewisburg.</i>	Lewisburg
MYRNA RUTH STRICKLER,	<i>Lewisburg.</i>	Lewisburg
CLAIR ESTERLINE STROHECKER,	<i>Lewisburg.</i>	Lewisburg
HENRY DAVID STUEMPFLE,	<i>Williamsport.</i>	No. 79, West College
DEAN DONNELL STURGIS,	<i>Uniontown.</i>	No. 38, East College
EARL SCHNEIDER TEED,	<i>Oregon Hill.</i>	No. 32, East Wing
JOHN DAVIS TREVASKIS,	<i>Weatherly.</i>	No. 51, East College
HOWARD ARTHUR VAN DINE,	<i>Great Neck, N. Y.</i>	No. 21, West Wing
ERNEST LEROY WAGNER,	<i>Lewisburg.</i>	South Seventh Street
MARK McNINCH WALTER,	<i>Mount Carmel.</i>	No. 64, East College
WALLACE JAMES WARD,	<i>Union City.</i>	No. 29, West Wing
WINIFRED WERKHEISER,	<i>West Milton.</i>	West Milton
FRANK FORREST WHITTAM,	<i>Chester.</i>	No. 18, East College
ANNA WILLIAMS,	<i>Nanticoke.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
THOMAS BENNETT WILLIAMS,	<i>Saint Clair.</i>	No. 119, East College
LEONARD BYRON WILLITS,	<i>Atlantic City, N. J.</i>	No. 62, West College
WILLIAM THOMAS WINDSOR,	<i>Bradford.</i>	No. 43, West College
JOHN MOORE WINGERT,	<i>Lewisburg.</i>	Lewisburg
HIRAM MICHAEL WOLFE,	<i>Lewisburg.</i>	Lewisburg
LAURA ETHEL YARD,	<i>Trenton, N. J.</i>	Women's College
MARGARET EMMA ZIEGLER,	<i>Bodines.</i>	Women's College
	Freshmen, 131.	

NON-MATRICULATES.

NAME.	RESIDENCE.	ROOM.
RAYMOND J. BELLES,	<i>Montoursville.</i>	No. 84, West College
EDMUND BRADY,	<i>New Rochelle, N. Y.</i>	No. 66, West College
MALCOLM BUFFINGTON,	<i>Brookville.</i>	No. 26, East College
FRED M. BURLEW,	<i>Freneau, N. J.</i>	No. 83, East College
RALPH O. CLAYPOOLE,	<i>Saltsburg.</i>	No. 32, West Wing
C. P. CUMMINGS,	<i>Scranton.</i>	South Third Street
BEATRICE EVANS,	<i>Middletown.</i>	Women's College
GARNETT M. FOX,	<i>McKeesport.</i>	Women's College
RALPH WENDELL FRYE,	<i>Monessen.</i>	No. 77, West College
WILLIAM THOMAS GOODWIN,	<i>Coatesville.</i>	No. 82, West College
JAMES KERCHNER LOEWEN,	<i>Tamaqua.</i>	No. 48, West College
RAYMOND MULLER,	<i>Highland Falls, N. Y.</i>	No. 8, East College
GRANT K. RAWSON,	<i>Holmesburg.</i>	No. 58, West College
WILLARD SAMUEL,	<i>Mount Carmel.</i>	No. 67, East College
LOUIS R. SCHICK,	<i>Waterbury, Conn.</i>	No. 41, West College
JOHN FRANCIS SMITH,	<i>West Winfield, N. Y.</i>	No. 7, East College
JOHN C. SNYDER,	<i>Lewisburg.</i>	Market Street
JOHN H. SPEER, JR.,	<i>Wyncote.</i>	No. 11, East College
RICHARD J. W. TEMPLIN,	<i>Shamokin.</i>	Shamokin

NAME.	RESIDENCE.	ROOM.
EARLE TOPHAM,	<i>Philadelphia.</i>	No. 90, West College
ENSLEY WHITE,	<i>Red Bank, N. J.</i>	No. 31, East Wing

Non-matriculいたes, 21.

SUMMARY.

Graduate Students	70
The Senior Class	76
The Junior Class	74
The Sophomore Class	113
The Freshman Class	131
Non-Matriculいたes	21
<hr/>	
Total	485

THE ACADEMY.

INSTRUCTORS.

JOHN HOWARD HARRIS, PH.D., LL.D.,
PRESIDENT OF THE UNIVERSITY.

WALTER SAMUEL WILCOX, SC.M., PRINCIPAL,
MATHEMATICS.

JOSEPH LINCOLN CHALLIS, A.M.,
LATIN.

CHARLES CARPENTER FRIES, A.M.,
GREEK.

HOMER BLAINE HEDGE, A.B.,
MODERN LANGUAGES.

WEAVER WEDDELL PANGBUHN, A.B.,
LATIN AND HISTORY.

JOHN KASE, SC.B.,
SCIENCE.

JOSEPH MEIXELL WOLFE, A.M.,
REGISTRAR OF THE UNIVERSITY.

ACADEMY STUDENTS.

FOURTH FORM.

NAME.	RESIDENCE.	ROOM.
JAMES ANDREW BRODE,	<i>Tamaqua.</i>	No. 22, East Hall
CONOVER HERBERT BURLEW,	<i>Freneau, N. J.</i>	No. 14, East Hall
EDGAR CARLTON CAMPBELL,	<i>Shunk.</i>	No. 21, East Hall
JOHN MINER DREW,	<i>Scranton.</i>	No. 10, East Hall
PAUL CHARLES HARTER,	<i>Loganton.</i>	No. 22, East Hall
NORMAN RAE HILL,	<i>Newberry.</i>	No. 15, East Hall
THOMAS LOUIS JAMES,	<i>Sharon.</i>	No. 10, West Wing
MILLER ALANSON JOHNSON,	<i>Lewisburg.</i>	Lewisburg
CHARLES CLEMENTS KEPPLE,	<i>New Alexandria.</i>	No. 8, Main Hall
JOHN GRIER LEWIS,	<i>Honeybrook.</i>	No. 11, East Hall
VICTOR EMANUEL LEWIS,	<i>Edwardsville.</i>	No. 9, East Hall
JOHN FRANKLIN LONG,	<i>Flemington.</i>	No. 10, Main Hall
BOYD AUGUSTUS LOWERY,	<i>Dewart.</i>	No. 5, Main Hall
EDWARD MALDONADO,	<i>Meredia, Yucatan, Mexico.</i>	South Sixth Street
CLARENCE AUGUSTINE MILLER,	<i>Franklin.</i>	No. 11, Main Hall
EDWARD PAUL MILLER,	<i>Montgomery.</i>	Home

NAME.	RESIDENCE.	ROOM.
GEORGE FUNSTON MILLER,	<i>Lewisburg.</i>	South Second Street
JAMES KANE PETITTE,	<i>Yonkers, N. Y.</i>	No. 5, Main Hall
SAMUEL LEROY SEEMAN,	<i>Oakmont.</i>	No. 13, East Hall
PERCY BROWN SMITH,	<i>Greensburg.</i>	No. 23, East Hall
BAKER FAIRCHILD SPYKER,	<i>Lewisburg.</i>	Market Street
HENRY CHARLES WOLFE,	<i>Lewisburg.</i>	St. George Street

THIRD FORM.

DAVID NATHANIEL BOSWELL,	<i>Washington.</i>	South Third Street
CARLOS CABALLE,	<i>Valparaíso, Chile.</i>	No. 10, Main Hall
CALVIN EMERY DUNKEL,	<i>Lewisburg, R. F. D.</i>	Home
DONALD ROSS DUNKLE,	<i>Lewisburg.</i>	Market Street
DONALD DAVID HAYES,	<i>Hartleton.</i>	No. 12, Main Hall
CHARLES ALFORD MOYER,	<i>Tamaqua.</i>	No. 19, East Hall
WILLIAM EMANUEL PERSING,	<i>Allenwood.</i>	Home
HAROLD TYSON SHARPE,	<i>Philadelphia.</i>	No. 7, Main Hall
ALFRED TENNYSON STEININGER,	<i>Lewisburg.</i>	West Market Street
ROY EMMETT STROHECKER,	<i>Lewisburg.</i>	Home

SECOND FORM.

ALFREDO AZNARD,	<i>Meredia, Yucatan, Mexico.</i>	South Sixth Street
FRANK DANOWSKI,	<i>Shenandoah.</i>	No. 18, East Hall

NAME.	RESIDENCE.	ROOM.
RANDALL PATRICK ELLIS,	<i>Watsonstown.</i>	Home
STANLEY NEWTON HARRIS,	<i>Lewisburg.</i>	University Avenue
MAX WILLIAM HORAM,	<i>Lewisburg.</i>	North Second Street
ELMER EUGENE KOONS,	<i>Camp Hill.</i>	No. 8, Main Hall
HARRY DAVID MOYER,	<i>Sunbury.</i>	Home
CHARLES AFFLERBACK REED,	<i>Philadelphia.</i>	No. 5, Main Hall
JULIUS FREDERICK SEEBACH,	<i>Lewisburg.</i>	South Third Street
THOMAS FRANCIS SHEA,	<i>New York, N. Y.</i>	No. 6, Main Hall
DANIEL RIDGEWAY STEELE,	<i>Newton, N. J.</i>	No. 4, Main Hall
FRANK LAWRENCE SULLIVAN,	<i>Passaic, N. J.</i>	No. 20, East Hall
DAVID HERBERT WILLIAMS,	<i>Scranton.</i>	No. 12, Main Hall

FIRST FORM.

HARRY RETTINGER BITTERMAN,	<i>Lykens.</i>	No. 2, East Hall
WEBER LATCHA GERHART, JR.,	<i>Lewisburg.</i>	South Third Street
JOSEPH BERNARD RYNKIEWICZ,	<i>Shenandoah.</i>	No. 18, East Hall
CLYDE WILLIAM WITHINGTON,	<i>Snydertown.</i>	Home

STUDENTS PURSUING SELECT STUDIES.

GEORGE CRASHAW BEDEA,	<i>Shenandoah.</i>	No. 17, East Hall
CLARENCE L'VELLE BURKE,	<i>Shenandoah.</i>	No. 17, East Hall
MILFORD ROLAND CULP,	<i>Sunbury.</i>	Home

NAME.	RESIDENCE.	ROOM.
EMELEN QUARELL DOAN,	<i>Berwick.</i>	No. 8, East Hall
THEODORE MULFORD DOAN,	<i>Berwick.</i>	No. 6, East Hall
WILLIAM KIRKE EDWARDS,	<i>Wilmerding.</i>	No. 9, East Hall
RALEIGH MILLER FELTON,	<i>Connellsville.</i>	No. 11, East Hall
ROBERT JOHN FERGUSON,	<i>Dover, Del.</i>	No. 8, East Hall
WILLIAM FREEMAN GREGG, JR.,	<i>Sunbury.</i>	No. 21, East Hall
BRICE ORWIG HARTER,	<i>Millmont.</i>	No. 8, East Hall
JAMES STOUGHTON MATHERS,	<i>Lewisburg.</i>	North Second Street
JAMES CLARK MILLER,	<i>Jeanette.</i>	No. 13, East Hall
DAYTON LEO RANCK,	<i>New Columbia.</i>	Home
EARL REICHELDERFER,	<i>Tamaqua.</i>	No. 19, East Hall
LOUIS NICHOLAS TRIPICIAN,	<i>Atlantic City, N. J.</i>	No. 19, East Hall

SUMMARY.

The Fourth Form.....	22
The Third Form.....	10
The Second Form.....	13
The First Form.....	4
Students Pursuing Select Studies.....	15

Total in the Academy..... 64

Students enrolled in other departments of the University who receive instruction in the Academy classes:

Greek	12
Latin	28
Mathematics	2
Science	12

— 54

Total receiving instruction in Academy classes, 118

COURSES OF STUDY.

The Academy is designed to fit pupils for College, for Teaching, or for Business. It offers three Courses of Study.

I. The Classical Course extends through four years and is arranged to meet the requirements for admission to College. The Study of Latin begins with the First Form and continues for four years and two terms. The Study of Greek begins with the Third Form and continues for two years and one term. Notwithstanding the time given to these branches of study, fully one half of the entire course is devoted to English, Historical, Mathematical, and Scientific subjects.

II. The Latin Scientific Course extends through four years and furnishes adequate preparation for either division of the Philosophical Course in College. The First and Second Forms of the Classical and Scientific Courses are identical. In the Third and Fourth Forms, the student preparing for the Latin Division substitutes Historical and Scientific subjects for the Greek of the Classical Course; while the student preparing for the Greek Division substitutes the Greek of the Third and Fourth Forms for the Latin and includes Historical and Scientific subjects.

III. The Scientific Course extends through four years and prepares for the Courses in General Science, in Biology, in Chemistry, and in Civil, Mechanical and Electrical Engineering in College. For the Vergil and the Cicero of the Latin Scientific Course, it substitutes one term of Advanced English, one term of Chemistry, and two years of German.

Students who are able to accomplish more work in the allotted time than is required by the Course may pursue honor work in the Classics by reading, under the instructor's direction, Cæsar's Civil War, Cicero's Letters, or Vergil's Eclogues, and Books IV, V, VI of the Iliad, or the Cyropædia.

Students will be admitted to the Form for which they are prepared.

Students who do not intend to enter College, but who desire a comprehensive academic training, will find the Scientific or the Latin Scientific Course well adapted to prepare them for teaching or for business.

Special classes in History and Literature are maintained to meet adequately the requirements of applicants for examination and registration as students at law, under the rules adopted by the Supreme Court of Pennsylvania.

CURRICULA.

Arabic numerals indicate the number of recitations a week
in each subject.

I. CLASSICAL COURSE.

FIRST FORM.

I. TERM—Algebra, 5, Latin, 5,	U. S. History, 5, English, 5.
II. TERM—Algebra, 5, Latin, 5,	English, 5, U. S. History, 5.
III. TERM—Geometry, 5, Latin, 5,	U. S. History, 5, English, 5.

SECOND FORM.

I. TERM—Higher Arithmetic, 5, Latin, 5,	Ancient History, 5, Rhetoric, 5.
II. TERM— { Bookkeeping, { Commercial Arithmetic, 5, Latin, 5,	Ancient History, 5, Rhetoric, 5.
III. TERM—Algebra, 5, Cæsar, 5,	Ancient History, 5, Literature, 5.

THIRD FORM.

I. TERM—Algebra, 5, Cæsar, 5,	Greek, 5, Elocution, 5.
II. TERM—Algebra, 5, Cæsar, 5,	Greek, 5, Literature, 5.

III. TERM—Algebra, 5,
Cicero, 5,

Anabasis, 5,
Literature, 5.

FOURTH FORM.

I. TERM—Geometry, 5,
Vergil, 5,

Cicero, 5,
Anabasis, 5.

II. TERM—Geometry, 5,
Vergil, 5,

{ Ovid, } 5,
{ Cicero, }

Iliad, 5.

III. TERM—Physics, 5,
Vergil, 5,

Iliad, 5,
Anabasis, 5.

II. THE LATIN SCIENTIFIC COURSE.

FIRST FORM.

I. TERM—Algebra, 5,
Latin, 5,

History, 5,
English, 5.

II. TERM—Algebra, 5,
Latin, 5,

History, 5,
English, 5,

III. TERM—Geometry, 5,
Latin, 5,

History, 5,
English, 5.

SECOND FORM.

I. TERM—Higher Arithmetic, 5,
Latin, 5,

Ancient History, 5,
Rhetoric, 5.

II. TERM—

{ Bookkeeping,
{ Commercial Arithmetic, 5,
Latin, 5,

Ancient History, 5,
Rhetoric, 5.

III. TERM—Algebra, 5,
Cæsar, 5,

Literature, 5,
Ancient History, 5.

THIRD FORM.

- I. TERM—Algebra, 5, Elocution, 5,
 Cæsar, 5,
 German, 5, or History of England, 5.
- II. TERM—Algebra, 5, Literature, 5,
 Cæsar, 5,
 German, 5, or Civics, 5.
- III. TERM—Algebra, 5, Literature, 5,
 Cicero, 5,
 German, 5, or Botany, 5.

FOURTH FORM.

- I. TERM—Geometry, 5, *German, 5, or French, 5,*
 Vergil, 5, *or Physiology, 5,*
 Cicero, 5, *or Chemistry, 5.*
- II. TERM—Geometry, 5, { Cicero, } 5,
 Vergil, 5, { Ovid, }
 German, 5, or Astronomy, 5, or French, 5.
- III. TERM—Physics, 5, *German, 5,*
 Vergil, 5, *or French, 5,*
 Solid Geometry, 5, *or Geology, 5.*

III. THE SCIENTIFIC COURSE.

FIRST FORM.

- I. TERM—Algebra, 5, History, 5,
 Latin, 5, English, 5.
- II. TERM—Algebra, 5, History, 5,
 Latin, 5, English, 5.
- III. TERM—Geometry, 5, History, 5,
 Latin, 5, English, 5.

SECOND FORM.

- I. TERM—Higher Arithmetic, 5, Ancient History, 5,
 Latin, 5, Rhetoric, 5.
- II. TERM—
 { Bookkeeping, Ancient History, 5,
 { Commercial Arithmetic, 5, Rhetoric, 5.
 Latin, 5,
- III. TERM—Algebra, 5, Literature, 5,
 Cæsar, 5, Ancient History, 5.

THIRD FORM.

- I. TERM—Algebra, 5, German, 5,
 Cæsar, 5, Elocution, 5.
- II. TERM—Algebra, 5, German, 5,
 Cæsar, 5, Literature, 5.
- III. TERM—Algebra, 5, German, 5,
 Botany, 5, Literature, 5.

FOURTH FORM.

- I. TERM—Geometry, 5, History of England, 5,
 Physiology, 5, *German*, 5,
 or *Chemistry*, 5, or *French*, 5.
- II. TERM—Geometry, 5, Civics, 5,
 Astronomy, 5, *German*, 5, or *French*, 5.
- III. TERM—Physics, 5, *German*, 5, or *French*, 5,
 Geology, 5, Solid Geometry, 5.

METHODS OF INSTRUCTION.

The Preparatory Curriculum naturally falls into eight principal lines of study, viz.: English, French, German, Latin, Greek, History, Mathematics, and Natural Science. These combine, in due proportion, the cultural, the disciplinary, and the practical elements of intermediate education. The two great divisions of modern study, the Classical and the Scientific, are accorded adequate and appropriate preparation. The subjects, facilities, and methods of the various departments are explained below.

I. THE ENGLISH LANGUAGE.

A thorough grounding in the principles of English Grammar is indispensable to the student's progress in the subsequent language studies. The continuous application of this knowledge in Composition, and the constant comparison with the forms and idioms of the Ancient Languages, prepare the way for the study of elementary Rhetoric, and the appreciative reading of English and American Literature. This work is done in the First Form.

In the Second Form a review in the principles of English Grammar is given, and a practical application of the same, together with rhetorical structure in paragraph writing and composition.

In the Third Form the first term is devoted to the study of Elocution, and the remaining two terms take up the study of Literature. The reading and study of the masterpieces of English and American Literature are maintained by means of daily recitations. The work required is identical with the "Scheme of Uniform Entrance Examinations in English Language and Literature," adopted by the "Association of Colleges and Preparatory Schools of the Middle States and Maryland." It comprises (a) careful reading of representative works of certain authors, as literature; (b) thorough study as to "subject-matter, form and structure" of other selections.

II. THE LATIN LANGUAGE.

The Course includes four and two thirds years of Latin, embracing four books of Cæsar, six orations of Cicero, six books of Vergil, and twelve hundred lines of Ovid, besides a complete course in Grammar and Composition.

Careful drill is given in the declensions and conjugations, in the use of the moods and the sequence of tenses, in the ready reading of the Latin text. in sight reading and in accurate translations into idiomatic English. Attention is given to the important personal, historical, and political elements in the writings of Cæsar and Cicero. In Vergil, the student is introduced to the poetry, legend, religion, and art of Rome. He is taught to investigate the allegorical, archæological, and mythical allusions of the *Æneid*; and to appreciate it as the mirror of the life of the Empire. Latin prosody is taught first from the text, and then from the grammar.

III. THE GREEK LANGUAGE.

The first two terms of the Third Form are spent in a thorough study of White's First Greek Book. In the third term Xenophon's *Anabasis* is read, and special attention is given to acquiring a vocabulary and to the forms and syntax of nouns, pronouns, and adjectives. In the first half of the Fourth Form the reading of Xenophon is continued. During the last half year Homer's *Iliad* is read, and the difference between the Homeric and Attic Forms is noted. Throughout the course, Prose Composition is frequently required for the purpose of acquiring a vocabulary and a knowledge of syntax. The course includes four books of the *Anabasis*, four books of the *Iliad*, besides the Grammar and Prose Composition.

IV. THE GERMAN LANGUAGE.

One year's study of German is required of members of the Third and Fourth Forms of the Scientific Course. The same work may be elected by the members of the corresponding form of the Latin Scientific Course instead of the science subjects of that course. In the study of German, the aim is a thorough acquaintance with declensions and conjugations; facility of pronunciation; quick recognition of words both by the eye and the ear; as extensive a vocabulary as the time will allow; and by constant practice the laying of a foundation for reading, writing, and speaking the language.

V. HISTORY.

The course in History includes a survey of the History of the United States, of England, of Greece, and of Rome. The aim is to acquaint the student with the life, the genius, the institutions, and

the achievements of the respective peoples, and their part in the wider history of mankind.

Additional courses are offered in Ancient, Mediæval, and Modern History, and extra courses in the historical readings required of applicants for examination and registration as students at law by the Supreme Court of Pennsylvania.

Civil Government is taught as a preparation for intelligent citizenship. The origin and growth of our institutions, the functions of the various departments of the National, State, and local governments, the political history of the people, the interpretation and construction of the Constitution, are presented and discussed.

VI. MATHEMATICS.

Arithmetic. To students who are fitting themselves for business, a course is given in practical business Arithmetic, involving all the ordinary problems and practices in the business world. To those who are preparing for college or for teaching, instruction is given in the theory and science of Arithmetic. Pupils are expected to master the principles and then to formulate their own rules.

Algebra. The Third Form course extends through one year, and includes a knowledge of the fundamental principles, Factoring, Divisors, and Multiples, Fractions, Equations, Involution, Evolution, Theory of Exponents, Radicals, and Quadratic Equations. Daily blackboard work serves to apply the principles taught. The student is required both to know the methods of the solution of problems and also to explain the operation to the class.

The First Form takes up Algebra for the first two terms. The work is intended to give the pupils a knowledge of algebraic principles and to assist them in their Arithmetic. The third term is devoted to Concrete Geometry and Mechanical Drawing.

Plane and Solid Geometry. The instruction consists in daily recitations for three terms on the Theorems and Problems given in the text-book, with original demonstrations of propositions by the students from hints and figures given in the classroom. Besides this, considerable attention is given to the solution of original Propositions, and the application of principles thus learned to the solution of numerical problems.

Bookkeeping. A practical introduction to the science of accounts is secured in the term devoted to mastering the principles of Double Entry Bookkeeping. Careful attention is given to business forms, to the usages of Banks, and to the elements

of Commercial Law. The subject may be pursued in its more extended and intricate application, as an elective, by properly qualified students.

VII. SCIENCE.

Botany is taught by text-books, field exercise, plant analysis, and weekly lectures. A brief outline is first obtained of plant structure, physiology, growth and reproduction. The subject is then reviewed by daily drill in analyzing, recording, classifying, and preserving specimens. The recorded analysis of fifty plants is required. Lectures explaining special forms of vegetable growth, the flora of this country, the cultivation, uses, and history of plants complete the work.

Physiology. Every effort is made to impart clear ideas of the structure, parts and functions of the human body. Special attention is given to the chemistry of foods, the laws of health, the effects of stimulants and narcotics. Suggestions are constantly made as to poisons and their antidotes, the care of the sick, disinfection and sanitation, and accidents and emergencies. Charts, manikin, and preparations are used in class.

Physics. The student is grounded in the elements of mechanics and physics. The apparatus of the College Laboratory is available for use. The historical beginnings of each subject, and subsequent development, are sketched in brief lectures. No pains are spared to familiarize the pupil with the laws of these sciences, by instruction, experiments, review, and repeated examination. The truth of principles is proved, except where the demonstration involves mathematics of the higher course in College.

Astronomy. Descriptive Astronomy discusses the earth's relations to the solar system, the masses, motions, and orbits of each member of it; the causes and consequences of the motions of the earth; general boundaries of the constellations of the Zodiac and northern heavens; the theories of comets, meteors, and nebulae. Charts, star maps, globes, and other apparatus are used, and the student is afforded privileges of observation in the College Observatory.

Geology. The student masters the elements of lithological, structural, dynamic, and historical Geology. Specimens of various rocks and minerals are handled in class; their composition, characteristics, and place in nature are explained; the structure of the earth in its present form is studied; the history of its evolu-

tion, the age and characteristics of its strata, the chief geological features of each continent, and the forces at work, and that have worked, to produce changes are considered.

VIII. ORATORY.

Class Exercises. Members of the Fourth Form prepare and deliver one original oration each term. All other students have regular exercises in Composition and Declamation throughout the year. Public exercises are held before the faculty and students of the Academy. Visitors are cordially invited to these exercises.

In addition to the private rehearsals for the work above indicated, students in the Third Form receive daily instruction in elocution during the fall term. The course includes careful drill in the Elementary sounds, in Articulation, and in Expression; in Analytical Reading, including the Bible and Hymns; and the reading of Shakspeare.

IX. SPECIAL BRANCHES.

Bible Study. The study of the Bible is pursued as a regular weekly recitation throughout the First, Second, and Third Forms, in all Courses of study. A scheme of study is arranged at the beginning of each year. It is intended that the successive schemes for the various years of the course will cover the Life of Christ, the historical portions of the Old Testament foreshadowing the Christ, and the history of the Apostolic Church.

The Study of Music may be pursued by Academic students in the School of Music.

Drawing. All students of the Academy may receive throughout the year weekly lessons in Free-hand Drawing and Penmanship without extra charge. Special individual instruction in Drawing in the Art Studio is afforded at twenty-four dollars per annum.

X. HEALTH AND PHYSICAL CULTURE.

The Tustin Gymnasium affords opportunity for physical exercise. The Directors of the Gymnasium give regular class exercises to the students of the Academy. Attendance upon physical training in the Gymnasium is obligatory during the Winter Term.

The Athletic Association of the Academy has been formed to encourage and regulate athletic sports. The Association is

allowed to arrange match games with other similar bodies by first securing the consent of the Principal.

PUBLIC EXHIBITIONS.

THIRD FORM.

The Public Exhibition in Declamation by the Third Form will take place on Saturday evening, April 13, 1912, in Bucknell Hall.

FOURTH FORM.

The closing exercises of the Academy will be the Public exhibition in Oratory of the Fourth Form, on June 15, 1912.

Diplomas and Certificates will be conferred Tuesday, June 18, 1912.

GENERAL INFORMATION.

ADVANTAGES.

To the student seeking preparation for College, the Academy offers unusual inducements. Its proximity to the College secures to him an atmosphere of study, acquaintance with the guides and companions of his future course, and the benefit of numerous literary exercises to be found only in College towns. He has access to the College Library and Reading Room. The Academy is designed to fit pupils thoroughly for College and Technical Schools, and to lay broad and solid foundations for all subsequent scholarly culture and for the successful conduct of everyday affairs.

GOVERNMENT.

Students are encouraged to regard self-government as the only true government. It will be the constant endeavor to secure uprightness of character, gentlemanly deportment, and diligent application to work, by kind treatment, and high standards in conduct and study.

I. ADMINISTRATION.

1. The general control of the Academy is vested in the President of the University.

2. The government of the Academy, subject to such control, rests with the Principal of the Academy.

3. The government of each Hall is vested in the Instructor in charge, who resides in the Hall and enforces regulations for the Hours of Study, Academy Property, Hygienic Precautions, and General Deportment, and such other prudential regulations as may be ordered by the joint concurrence of the President of the University and the Principal of the Academy.

4. Each instructor shall have charge of his classes with reference to attendance upon recitations. He shall report to the Principal cases of non-attendance, and inexcusable failure on the part of students to prepare regular lessons or special work assigned.

II. VIOLATION OF RULES.

1. Any officer of the Institution becoming cognizant of any violation of the regulations by any pupil shall report the same to the Principal of the Academy, who shall make a record of the fact in a book provided for the purpose.

2. Every violation of the laws and prudential regulations of the Academy will subject the offender to a penalty of demerits, graded according to the flagrancy and frequency of the offense.

3. When the sum of a pupil's demerits equals ten it shall be the Principal's duty to notify the parent or guardian of the offender, specifying the offense; for every additional ten demerits like notification shall be made.

4. Additional disciplinary penalties in the form of reprimand, "campus," suspension, dismissal, or expulsion, according to the necessities of the case, will follow repeated violations.

BUILDINGS AND ROOMS.

The Academy Buildings are described in detail in the introductory pages of the Catalogue.

The Main Building contains, besides its accommodations for other school and boarding purposes, rooms for students. The rooms are designed to accommodate two students each, and are twenty feet by twelve feet, and fourteen feet high; furnished with new folding beds, washstands, chairs, mirror and table.

The East Hall contains combined study and sleeping rooms, each designed for two students. These rooms are fifteen feet by twelve feet, with high ceilings, and contain two commodious closets and two single wire mattress beds with all necessary furniture.

ARTICLES REQUIRED.

Each student should be provided with an umbrella, overshoes, table napkins, towels, soap, and other articles usually required for personal comfort. All articles for the laundry should be marked with the owner's name.

BOARDING.

All students from a distance will occupy rooms and will board in the Academy, except for reasons jointly satisfactory to the President of the University and the Principal of the Academy.

The Principal and his family, the Instructors, and the Matron live in the building, take their meals with the boarders, and strive in all possible ways to secure the welfare and happiness of the students. The Instructors occupy rooms adjacent to the students' apartments. The appointments of the Dining Room, the character of the table supplies, the household service in general, are designed to furnish the comforts of a first-class boarding house. So far as may be warranted by the deportment of the students, there will be absent from the home life of the school all needless uniformity and irksome limitations, which disregard the reasonable individual preference of pupils.

The Academy gives to furnished rooms daily and complete attention, provides and washes all bedding and bed clothing, and supplies and cares for all lights.

Engagements for board and rooms are expected to continue without change to the end of the school year for which they are made.

APPLIANCES.

The Academy is in possession of excellent apparatus for instruction. A select Reference Library, containing Encyclopedias, Lexicons, Dictionaries, Atlases, and various other helps, is accessible to students at all hours. The Classical Recitation Rooms are provided with Kiepert's Wall Maps of Ancient Geography, and with Reinhard's Album of Ancient Antiquities, mounted. Metric apparatus, Maps and Globes render assistance in other directions.

The apparatus of the College also is accessible to the classes for purposes of experiment and illustration.

The College Library, numbering thirty thousand volumes, is available for all students.

SCHOOLROOM.

In order to insure favorable conditions of study, the Academy maintains a commodious and well-appointed schoolroom. The school life centers in this room. Here, except when engaged in recitations, day students prepare their work, unless excused for a part of the time, for good cause; here, also, all the younger students of the lower forms prepare for their recitations. Advanced students and those of maturer years, who have acquired habits of independent study, are granted the privilege of preparing part of their work in their rooms, provided that they maintain high scholarship and excellent deportment.

HOURS.

The time devoted to study and recitation amounts to nine hours every week-day, except Saturday, when it is only two hours. This time should be sacred to its purpose. Parents of day pupils are requested to coöperate with the school in securing attention to evening study hours, and to avoid furnishing occasions or granting excuses for absence.

Students from a distance should be in Lewisburg on the day preceding the opening of each term, and no student should leave until the term has closed. Punctuality in attendance is essential to success in school work.

For terms and vacations, see the Calendar of the University.

STANDING AND PROMOTIONS.

The weekly averages of marks for recitations are recorded, and also failures in conduct and attendance. The scale for such markings ranges from 10, or perfect, to 0, or inexcusable failure. Unexcused absences count as zero.

Monthly and term examinations are held in the studies thus far completed, and term reports of the average in scholarship, attendance, and conduct of each student are sent to parents or guardians by the Principal.

No student is promoted to the next higher class whose grade in any study is less than 7.

Students who complete the Preparatory Courses of Study are admitted to standing in corresponding divisions of the Freshman Class in the College, upon the Principal's certificate, without examination.

All students who complete in a satisfactory manner any of the Courses of Study, and who have sustained irreproachable character during their school residence, shall be entitled to the diploma of the Academy.

Students attaining an average standing of 9 are encouraged to take work additional to the Regular Courses of Study.

PRIZES.

THE HARRY S. HOPPER PRIZE.

Mr. Harry S. Hopper, of Philadelphia, Chairman of the Board of Trustees, offers an annual prize for excellence in Composition.

This prize for 1911 was awarded to Frederick Harrison Fahringer.

THE DAVID PORTER LEAS PRIZE.

David P. Leas, of Philadelphia, Treasurer of Bucknell University, offers an annual prize to that member of the Third Form who shall excel in the Annual Exhibition of the Third Form in Declamation.

This prize for 1911 was awarded to Gilbert Judson Meredith.

THE PRINCIPAL'S PRIZE.

Principal Wilcox offers an annual prize to that member of the Fourth Form who shall pronounce the best oration at the Academic Graduating Exhibition.

This prize for 1911 was awarded to Jacob Henry Auslander.

LITERARY SOCIETY.

This is an organization of students for mutual improvement in literary and oratorical exercises. It has a large and convenient hall in the Main Academy Building, where meetings are held on Friday evenings.

RELIGIOUS SERVICES.

The duties of each day are opened with devotional exercises, which all students are required to attend. Devotional exercises are also held every evening, just before the evening study hour. All academic students residing on the University campus are required to attend these exercises.

Regular attendance at Sunday school and upon public worship at some church on Sunday morning, is required; also upon services

on Thanksgiving Day, and the Day of Prayer for Colleges. Attendance upon Christian Endeavor or other like Young People's Society, and the mid-week prayer-meetings, while voluntary, is strongly urged upon students.

Parents or guardians are required to indicate to the Principal the church which they desire their sons or wards to attend.

The Academy students maintain a branch of the Young Men's Christian Association, which holds a weekly prayer-meeting on Tuesday evenings.

EXPENSES OF ACADEMY STUDENTS.

	<i>Per Annum.</i>
Tuition, Board, Furnished Room, Heating, Light, Care,	
Washing and Incidentals.....	\$290.00
Tuition and Incidentals to day pupils.....	85.00

A student engaging a room is required to make a deposit of ten dollars. This amount is credited upon the regular term bills. Should a student for good reasons be unable to return, the deposit will be refunded, provided notice is sent to the Register not less than four weeks before the opening of the term for which the room is engaged.

All charges are payable to the Registrar of the University in advance, at the beginning of each term.

No student is entitled to his place in his class until he has made settlement for the term bills.

An extra charge will be made for washing more than twelve pieces per week.

Students who remain in the Academy during the holiday or spring vacation will be charged at the rate of \$5.00 per week. Table boarders will be charged the regular rate, \$3.50 per week.

Free scholarships covering tuition are provided in all the departments of the University for the children of Ministers of the Gospel *in actual service*. Tuition is rated at \$36 a year.

The expenses for Music and Printing for Exhibition and Anniversary occasions are paid by the classes for which such expenses are incurred.

For information respecting the Academy, address the President of the University, or the Principal, Walter S. Wilcox, Sc.M.

THE INSTITUTE.

INSTRUCTORS AND OTHER OFFICERS.

JOHN HOWARD HARRIS, PH.D., LL.D.,
PRESIDENT OF THE UNIVERSITY.

THOMAS ALPHEUS EDWARDS, A.M.,
DEAN OF THE DEPARTMENT FOR WOMEN,
AND INSTRUCTOR IN PSYCHOLOGY AND ETHICS.

EMMA LOUISE BUSH, A.B., PRECEPTRESS,
TEACHER OF GERMAN.

MARGARET ELLEN KALP, A.B.,
TEACHER OF ENGLISH AND HISTORY.

MARY GEORGIANA STANTON, PH.B.,
TEACHER OF LATIN AND ENGLISH.

MARY STONER GRETZINGER,
TEACHER OF ENGLISH.

EDITH SCHILLINGER,
TEACHER OF ELOCUTION AND GYMNASTICS.

PAUL GEORGE STOLZ, B.S.,
ASSISTANT DIRECTOR OF THE SCHOOL OF MUSIC.

BUCKNELL UNIVERSITY

CHARLOTTE S. ARMSTRONG,
TEACHER OF INSTRUMENTAL MUSIC.

BESSIE SUTHERLAND RICE, B.S.,
TEACHER OF VOCAL MUSIC.

HARRIET MAY HOLLINGSHEAD,
TEACHER OF INSTRUMENTAL MUSIC.

GEORGINA K. SCOTT,
TEACHER OF ART.

HOMER BLAINE HEDGE, A.B.,
TEACHER OF MATHEMATICS.

JOHN H. KASE,
TEACHER OF SCIENCE.

JOSEPH MEIXELL WOLFE, A.M.,
REGISTRAR.

DIRECTORY OF THE ALUMNÆ.

OFFICERS OF THE ALUMNÆ ASSOCIATION.

President, MISS ELLA LAWSHE.

Vice President, MISS EMMA BEAVER.

Recording Secretary, MISS HELEN HARE.

Corresponding Secretary, MRS. JENNIE FOLLMER, Lewisburg.

Treasurer, MISS MARIE LEISER.

Board of Managers,

THE OFFICERS OF THE ASSOCIATION, AND MRS. C. A. HARE,
AND MRS. H. M. MCCLURE.

OFFICERS OF THE LEWISBURG ALUMNÆ CLUB.

President, MISS ELBINA L. BENDER.

Vice President, MRS. JENNIE DAVIS PHILLIPS.

Secretary, MRS. GRACE SLIFER DRUM.

Treasurer, MISS EUDORA HAMLER.

OFFICERS OF THE PHILADELPHIA ALUMNÆ CLUB.

President, MRS. DANIEL SUTER.

Vice Presidents, MRS. I. H. O'HARRA, MISS HANNAH GOODMAN.

Recording Secretary, MISS LETITIA MATHEWS.

Corresponding Secretary and Treasurer, MRS. DEWEY A. COBB,
3227 Race Street, Philadelphia.

The Dean of the Department for Women will esteem it a favor if any graduate who changes her residence will give notice of her new address. He will also be grateful for any information that will assist in making the directory of the graduates and former students complete.

GRADUATES, CLASS OF 1911.

NAME.	RESIDENCE.
HELEN MAY BROWN,	Lewisburg
MIRIAM RUTH HOFFA,	Lewisburg
MARY ANNA KUNKEL,	Lewisburg
RUTH BARBARA MOHN,	Lewisburg
MARY ETHEL NOLL,	Lewisburg
MARY EDNA STAROOK,	Lewisburg
KATHERINE STEIN,	Lewisburg
DOROTHY WOLFE,	Lewisburg
BERTHA JEANETTE YARGER,	Lewisburg

THE SENIOR CLASS.

NAME.	RESIDENCE.	ROOM.
MARY MORRIS CLAYTON,	<i>Lewisburg.</i>	South Fourth Street
NELLIE M. FOLLMER,	<i>Lewisburg.</i>	North Fifth Street
MARGARET CHRISTINE GRETZINGER,	<i>Lewisburg.</i>	South Sixth Street
MARGARET FAYE HARTER,	<i>Loganton.</i>	Women's College
MARGARET MCCLURE,	<i>Lewisburg.</i>	University Avenue
ELEANOR EMMA PROSS,	<i>Lewisburg.</i>	Market Street
HELEN DOWLING WAINWRIGHT,	<i>Columbus, N. J.</i>	Women's College
ISABELLE BOWMAN WOLFE,	<i>Lewisburg.</i>	North Third Street

THE FOURTH YEAR CLASS.

EVA ELIZABETH BROWN,	<i>West Lewisburg.</i>	West Lewisburg
LENA GARVER FORGY,	<i>McVeytown.</i>	Women's College
ALICE JOHNSON,	<i>Lewisburg.</i>	University Avenue
ADA ALBERTA SMITH,	<i>Paxinos.</i>	Women's College

THE THIRD YEAR CLASS.

NAME.	RESIDENCE.	ROOM.
CHARLOTTE WENTZ BUTLER,	<i>Lewisburg.</i>	South Fourth Street
KATHERINE CLAYTON,	<i>Lewisburg.</i>	South Fourth Street
EDITH VIRGINIA FOCHT,	<i>Lewisburg.</i>	South Second Street
HELEN DALTON LEDIARD,	<i>Brooklyn, N. Y.</i>	Women's College
JEANNETTE CAROLYN OWENS,	<i>Lewisburg.</i>	South Sixth Street
ELIZABETH STEPHENS,	<i>Lewisburg.</i>	South Sixth Street
MARY JOSEPHINE WOLFE,	<i>Lewisburg.</i>	South Third Street

THE SECOND YEAR CLASS.

MARY MAGDALENE BUBB,	<i>Dalmatia.</i>	South Seventh Street
MAY ANGELINE EVERITT,	<i>Vicksburg.</i>	Vicksburg
GRACE KATHERINE EVERITT,	<i>Vicksburg.</i>	Vicksburg
ANNA MAY FISHER,	<i>Lewisburg.</i>	South Third Street

THE FIRST YEAR CLASS.

RUTH ELIZABETH WINTER,	<i>Lewisburg.</i>	St. George Street
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PURSUING SELECT STUDIES.

FLOSSIE ELEANOR CLARK,	<i>Sunbury.</i>	Sunbury
GRACE FREAS,	<i>Narcissa.</i>	Women's College
ELIZABETH LOUDON HEINSLING,	<i>Altoona.</i>	Women's College
AMELIA FRASURE McSPARRAN,	<i>Philadelphia.</i>	Women's College

NAME.	RESIDENCE.	ROOM.
RACHEL MOYER,	<i>Mifflinburg.</i>	Mifflinburg
ALVESTA GEARHART REBER,	<i>Lewisburg.</i>	South Third Street
ANNA ELIZABETH REED,	<i>Milton.</i>	Milton
EDNA ELEANOR SAYENGA,	<i>Carrick.</i>	South Sixth Street
FLORENCE DALE WOLFE,	<i>West Lewisburg.</i>	West Lewisburg

SUMMARY.

Senior Class	8
Fourth Year Class.....	4
Third Year Class.....	7
Second Year Class.....	4
First Year Class.....	1
Pursuing Select Studies.....	9
<hr/>	
Total	33

COURSES OF STUDY.

The Bucknell Institute offers to young women three courses of study, each extending over five years. Students are admitted to advanced standing, if upon examination they are found to have satisfactory knowledge of the branches which the class they propose to enter has already completed.

Credentials from Graded Schools are accepted in the studies of the First and Second Years.

Credentials are accepted from the Third and Fourth Years from schools whose curricula are equivalent to that of Bucknell Institute; also from accredited private teachers, in studies which are *continued* after entrance.

I. THE LITERARY COURSE.

The Literary Course embraces, in MATHEMATICS, Arithmetic, common and advanced, Algebra and Geometry, plane and solid, and Higher Algebra with Trigonometry and Analytical Geometry as electives; in LATIN, four years; in GERMAN, two years, and a third year elective with FRENCH; in FRENCH, one year; and in ITALIAN and SPANISH, an optional course; in SCIENCE, Physical Geography, Botany, Astronomy, Physics, Physiology, Chemistry, and Geology. In these branches the students have the advantages afforded by the College Observatory, Laboratory, and Museum. The course also includes Rhetoric, Composition, Civil Government, Psychology, Ethics, and History of Art.

Special attention is given to History and Literature, to the former of which six and to the latter of which three terms are devoted, besides the reading of English and American authors required for admission to College.

Graduates of the Institute in the Literary Course, upon the completion of eighteen courses of additional work in the College of Liberal Arts, may receive the degree of Bachelor of Letters.

II. THE CLASSICAL COURSE.

The Classical Course embraces, in MATHEMATICS, Arithmetic, Algebra, Geometry, plane and solid, University Algebra, Trigonom-

etry and Analytical Geometry; in LATIN, Grammar and Composition, Cæsar, Vergil, Cicero's Orations, Ovid, Cicero *de Senectute et de Amicitia*, Livy, and Velleius. in all, five years; in GREEK, Grammar and Composition, Xenophon's Anabasis, Homer's Iliad, Lysias' Orations, Plato's Apology, Homer's Odyssey, and the Greek Testament, in all, three years; in HISTORY, General History, and Greek and Roman History.

Students who complete the Classical course are admitted to the Sophomore Class in College as candidates for the first degree in Arts.

III. THE LATIN SCIENTIFIC COURSE.

The Latin Scientific Course corresponds to the Classical course except that scientific subjects are substituted for the first two years of Greek, and German for the third year of Greek.

Students who complete the Latin Scientific course are admitted to the Sophomore Class in College as candidates for the first degree in Philosophy.

Students in the fifth year Classical or Latin Scientific course recite to the professors in the College.

Students who do not wish to pursue a course of study may elect such subjects in connection with recitations of the regular classes as they may be qualified to pursue.

AGE REQUIREMENT FOR ADMISSION.

The required age for admission to the first-year class or to pursue select studies is twelve years, and a proportionate increase of age for admission to advanced classes.

CURRICULA.

Arabic numerals indicate the number of recitations a week
in each subject.

I. THE LITERARY COURSE.

FIRST YEAR.

- | | |
|--|----------------------------------|
| <p>I. TERM—Algebra, 5,
Latin, 5,
History, 5,</p> | <p>English, 4,
Bible, 1.</p> |
| <p>II. TERM—Algebra, 5,
Latin, 5,
Drawing, 5,</p> | <p>English, 4,
Bible, 1.</p> |
| <p>III. TERM.—Geometry, 5,
Latin, 5,
History, 5,</p> | <p>English, 4,
Bible, 1.</p> |

SECOND YEAR.

- | | |
|--|---|
| <p>I. TERM—Higher Arithmetic, 5,
Cæsar, Introduction, 5,
Ancient History, 5,</p> | <p>Rhetoric, 4,
Bible, 1.</p> |
| <p>II. TERM—
Bookkeeping,
Commercial Arithmetic, 5,
Cæsar, 5,</p> | <p>Ancient History, 5,
Literature, 4,
Bible, 1.</p> |
| <p>III. TERM—Physical Geography, 5,
Cæsar, 5,
Ancient History, 5,</p> | <p>Literature, 4,
Bible, 1.</p> |

THIRD YEAR.

- | | |
|---|-----------------------------|
| I. TERM—Algebra, 5,
Cæsar, 5,
German, 5 <i>or</i>
History of England, 5, | Elocution, 4,
Bible, 1. |
| II. TERM—Algebra, 5,
Cicero, 5,
German, 5, <i>or</i>
Civics, 5, | Literature, 4,
Bible, 1. |
| III. TERM—Algebra, 5,
Cicero, 5,
German, 5, <i>or</i>
Botany, 5, | Literature, 4,
Bible, 1. |

FOURTH YEAR.

- | | |
|--|---|
| I. TERM—Geometry, 5,
Vergil, 5,
Cicero, 5, | German, 5, <i>or</i>
Physiology, 5, <i>or</i>
Chemistry, 5. |
| II. TERM—Geometry, 5,
Vergil, 5,
{ Cicero, }
{ Ovid, } 5, | German, 5, <i>or</i>
Astronomy, 5. |
| III. TERM—Physics, 5,
Vergil, 5, | German, 5, <i>or</i>
Geology, 5. |

SENIOR YEAR.

- | | |
|--|---|
| I. TERM—Psychology, 5,
English Literature, 5,
French, 5, <i>or</i>
German, 5, <i>or</i>
Solid Geometry, 5, | Bible, 1,
Composition, 1,
Elocution, 1. |
| II. TERM—English Literature, 5,
History of Art, 5,
French, 5, <i>or</i>
German, 5, <i>or</i>
Algebra, 5, | Bible, 1,
Composition, 1,
Elocution, 1,
Physical Culture, 5. |

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|-------------------------|-----------------|
| III. TERM—Ethics, 5, | Bible, 1, |
| American Literature, 5, | Composition, 1, |
| French, 5, <i>or</i> | Elocution, 1. |
| German, 5, <i>or</i> | |
| Trigonometry, 5, | |
-

II. THE CLASSICAL COURSE.

FIRST YEAR.

- | | |
|------------------------|-------------|
| I. TERM—Algebra, 5, | English, 4, |
| Latin, 5, | Bible, 1. |
| History, 5, | |
| II. TERM—Algebra, 5, | English, 4, |
| Latin, 5, | Bible, 1. |
| History, 5, | |
| III. TERM—Geometry, 5, | English, 4, |
| Latin, 5, | Bible, 1. |
| History, 5, | |

SECOND YEAR.

- | | |
|----------------------------------|---------------------|
| I. TERM—Higher Arithmetic, 5, | Rhetoric, 4, |
| Cæsar, Introduction, 5, | Bible, 1. |
| Ancient History, 5, | |
| II. TERM—Bookkeeping, | Ancient History, 5, |
| Commercial Arithmetic, 5, | Literature, 4, |
| Cæsar, 5, | Bible, 1. |
| III. TERM—Physical Geography, 5, | Literature, 4, |
| Cæsar, 5, | Bible, 1. |
| Ancient History, 5, | |

THIRD YEAR.

- | | |
|---------------------|---------------|
| I. TERM—Algebra, 5, | Elocution, 4, |
| Cæsar, 5, | Bible, 1. |
| Greek, 5, | |

- | | |
|-----------------------|----------------|
| II. TERM—Algebra, 5, | Literature, 4, |
| Cicero, 5, | Bible, 1. |
| Greek, 5, | |
| III. TERM—Algebra, 5, | Literature, 4, |
| Cicero, 5, | Bible, 1. |
| Greek, Anabasis, 5, | |

FOURTH YEAR.

- | | |
|-----------------------|---------------------|
| I. TERM—Geometry, 5, | Cicero, 5, |
| Vergil, 5, | Greek, Anabasis, 5. |
| II. TERM—Geometry, 5, | { Cicero, } 5, |
| Vergil, 5, | |
| | |
| | Iliad, 5. |
| III. TERM—Physics, 5, | Iliad, 5, |
| Vergil, 5, | Anabasis, 5. |

SENIOR YEAR.

- | | |
|-------------------------------|----------------------|
| I. TERM—Solid Geometry, 5, | Bible, 1, |
| Cicero de Senectute, 5, | Composition, 1, |
| { Greek Prose Composition, 5, | Elocution, 1. |
| { Odyssey, | |
| II. TERM—Algebra, 5, | Bible, 1, |
| Livy, 5, | Composition, 1, |
| { Lysias, | Elocution, 1, |
| { Greek Testament, 5, | Physical Culture, 5. |
| III. TERM—Trigonometry, 5, | Bible, 1, |
| Velleius and Pliny, 5, | Composition, 1, |
| { Plato, | Elocution, 1. |
| { Greek Testament, 5, | |

III. THE LATIN SCIENTIFIC COURSE.

FIRST YEAR.

- | | |
|---------------------|-------------|
| I. TERM—Algebra, 5, | English, 4, |
| Latin, 5, | Bible, 1. |
| History, 5, | |

- | | |
|------------------------|-------------|
| II. TERM—Algebra, 5, | English, 4, |
| Latin, 5, | Bible, 1. |
| History, 5, | |
| III. TERM—Geometry, 5, | English, 4, |
| Latin, 5, | Bible, 1. |
| History, 5, | |

SECOND YEAR.

- | | |
|----------------------------------|---------------------|
| I. TERM—Higher Arithmetic, 5, | Rhetoric, 4, |
| Cæsar, Introduction, 5, | Bible, 1. |
| Ancient History, 5, | |
| II. TERM—Bookkeeping, | Ancient History, 5, |
| Commercial Arithmetic, 5, | Literature, 4, |
| Cæsar, 5, | Bible, 1. |
| III. TERM—Physical Geography, 5, | Literature, 4, |
| Cæsar, 5, | Bible, 1. |
| Ancient History, 5, | |

THIRD YEAR.

- | | |
|------------------------|----------------|
| I. TERM—Algebra, 5, | Elocution, 4, |
| Cæsar, 5, | Bible, 1. |
| German, 5, <i>or</i> | |
| History of England, 5, | |
| II. TERM—Algebra, 5, | Literature, 4, |
| Cicero, 5, | Bible, 1. |
| German, 5, <i>or</i> | |
| Civics, 5, | |
| III. TERM—Algebra, 5, | Literature, 4, |
| Cicero, 5, | Bible, 1. |
| German, 5, <i>or</i> | |
| Botany, 5, | |

FOURTH YEAR.

- | | |
|----------------------|--------------------------|
| I. TERM—Geometry, 5, | German, 5, <i>or</i> |
| Vergil, 5, | Physiology, 5, <i>or</i> |
| Cicero, 5, | Chemistry, 5. |

II. TERM—Geometry, 5,
 Vergil, 5,
 { Cicero, } 5,
 { Ovid, } 5,

German, 5, *or*
 Astronomy, 5.

III. TERM—Physics, 5,
 Vergil, 5,

German, 5, *or*
 Geology, 5, *or*
 Solid Geometry, 5.

SENIOR YEAR.

I. TERM—Solid Geometry, 5,
 Cicero de Senectute, 5,
 German, 5, *or*
 French, 5,

Bible, 1,
 Composition, 1,
 Elocution, 1.

II. TERM—Algebra, 5,
 Livy, 5,
 German, 5, *or*
 French, 5,

Bible, 1,
 Composition, 1,
 Elocution, 1,
 Physical Culture, 5.

III. TERM—Trigonometry, 5,
 Velleius and Pliny, 5,
 German, 5, *or*
 French, 5,

Bible, 1,
 Composition, 1,
 Elocution, 1.

METHODS OF INSTRUCTION.

I. PSYCHOLOGY AND ETHICS.

Psychology is taught by text-book and informal lectures. The relation of Psychology to education is made a special feature of the course.

The aim in the Course in Ethics is to make the instruction as practical as possible. Theses on problems in Ethics are required of each student taking the subject, in addition to recitations from text-books.

II. LITERATURE AND ART.

LITERATURE is taught by topical outlines, the elaboration of which depends upon a sympathetic study of the masterpieces in connection with the lives and times of the writers. The subject is so presented that a vital experience results rather than an empty form of knowledge. The object of the course is to cultivate and ennoble the emotions, to stimulate the imagination, and to reinforce the will with strong and exalted motives.

THE HISTORY OF ART is offered in the Senior Year, Literary Course. The aim of the course is to give a general knowledge of the development of art and to lead to an acquaintance with individual artists and their work. Some attention is given to the theories concerning the origin of the art-impulse itself, and the law of the mental evolution which has governed the history of art.

III. HISTORY.

History. Six terms are devoted to this study. The course embraces General History, the History of the United States, of England, of Greece, and of Rome. Efforts are made to show the learner that History is not mere facts in chronological order, but a record of the development of civilization.

Civil Government. The origin and growth of our institutions, the functions of the various departments of the National, State, and local governments, the political history of the people, the interpretation and construction of the Constitution, are discussed.

IV. THE ENGLISH LANGUAGE.

English Grammar. The aim is to train the pupils to speak and write the English language with accuracy and force.

Rhetoric is taught as a practical aid to English Composition. Daily exercises in composition are required.

English Composition is required throughout the course. Classes in Composition meet weekly for general criticism and the assignment of work. One essay is required from each student monthly, and an exercise in rapid and concise writing is required weekly.

V. THE LATIN LANGUAGE.

Paradigms of Declension and Conjugation with the Principles of Syntax, are introduced gradually, after many illustrations. English sentences are translated into Latin, readiness in Latin Composition and a correct style being thus acquired.

The following courses are offered: 1. Latin Grammar and Lessons; 2. Eutropius; 3. Cæsar, Gallic War; 4. Vergil, *Æneid*; 5. Cicero, Orations; 6. Ovid; 7. Cicero, *de Senectute*, and Livy; 8. Livy, Books XXI and XXII; 9. Velleius and Pliny.

VI. THE GREEK LANGUAGE.

The first half of the Third Year is spent in acquiring sufficient knowledge of forms and inflections to commence the study of Xenophon's *Anabasis*. During the last half year, special attention is given to the inflection and syntax of nouns, pronouns, and adjectives. The reading of Xenophon is continued in the first term of the Fourth Year, and the forms and syntax of verbs made a special study. Homer is then read for one term and a half, and the difference between Homeric and Attic forms is noted. During the last half term Xenophon is reviewed, that the student may refresh her knowledge of Attic Greek, and may not find her transition to College needlessly difficult. Almost daily drill is given in turning into Greek, sentences based on the text of Xenophon.

The following courses in Greek are offered to students in the Classical Course: 1. Greek Lessons; 2. Xenophon's *Anabasis*; 3. Homer's *Iliad*; 4. Lysias' Orations; 5. Homer's *Odyssey*; 6. Plato's *Apology*; 7. Greek New Testament.

VII. MODERN LANGUAGES.

1. French, Italian, and Spanish. The modern languages are taught by comparing them with the mother tongue of the pupil, if there be any relation between them. If there is none, they are compared with the Latin and Greek languages. In French, rules are taught by which the words that are not exactly the same in the two languages are easily made into French.

French Syntax is taught by examples and illustrations from readings. The grammar is taught from the language, and not the language from the grammar.

As far as practical only French is spoken in the classroom. Extracts are read from the best French literature. Conversations are held in French on the readings, stories are related, and compositions prepared in French by the pupil.

The aim is to teach the modern languages so that they can be spoken correctly.

The same method is used in teaching Spanish and Italian.

2. German. In the study of German the aim is to get knowledge of the language in an all-round way. This is accomplished not alone through the study of grammar and the translation of German into English, but by daily practice in conversation, the committing to memory of poems and idioms, and through an acquaintance with biography and the different phases of German life. As little English as practicable is used in the classroom. Throughout the course there is constant sight reading, translation at hearing, and translation from English into German.

The reading of the second year includes the best German authors studied in connection with Keller's History of German Literature.

VIII. MATHEMATICS.

Arithmetic. Two objects are considered in teaching the subject; first, to give the student a practical knowledge of all ordinary business problems and calculations; second, to develop her ability to think logically and rapidly. The memorizing of rules and mechanical processes is not required, but independent thought, logical analysis and neatness, clearness and accuracy in all written work are demanded. A drill in Mental Arithmetic is combined with the required work of the text-book.

Elements of Algebra. Three terms are given to this subject. There is thorough drill in the fundamental operations, and the idea that these are simply the applications of arithmetical processes to symbols of general value is kept constantly in mind. The course includes Quadratic Equations, Theory of Exponents, Variation, and Series.

Geometry. The course includes Plane and Solid Geometry. Besides the demonstrations of Theorems given in the text-book, original demonstrations and the solution of problems are required.

Higher Algebra. The topics discussed are: Progressions, Theory of Limits, Differentiation, Development of Functions into Series, Convergency and Summation of Series, Logarithms, Compound Interest and Annuities, Permutations and Combinations, Probability, Continued Fractions, and the Theory of Equations.

Trigonometry. The course includes Plane and Spherical Trigonometry. Time is given to the numerical illustrations of principles for the purpose of making sure that the meaning and use of formulæ demonstrated and learned are thoroughly understood.

Analytical Geometry. The student is taught the elementary properties of the right line and the conic sections. The course is intended to give a clear conception of the methods of Cartesian Analysis, rather than extensive knowledge of its results.

IX. SCIENCE.

Physics. The student is thoroughly grounded in the elements of mechanics and physics. The historical beginnings of each subject, and subsequent developments, are sketched in brief lectures. No pains are spared to familiarize the pupils with the laws of these sciences by instruction, experiment, review, and repeated examination. The truth of principles is proved, except where the demonstration involves the higher mathematics. The apparatus of the College is available for class use.

Astronomy. Descriptive Astronomy discusses the earth's relation to the solar system; the masses, motions, and orbits of each member; the causes and consequences of the motions of the earth; general boundaries of the constellation of the Zodiac and Northern Heavens; the accepted theories of comets, meteors, and nebulae. Charts, star maps, globes, and other apparatus are used, and the student is afforded privileges of observation in the College Observatory.

Physical Geography lays a broad foundation for subsequent work in all sciences. Special attention is given to the physical features of the United States. Drawings, photographs, colored and relief maps, and specimens from the Museum and field work aid to make the subject clear.

Geology. The student is required to master the elements of lithological, structural, dynamic, and historical Geology. Specimens of various rocks and minerals are handled in class; their composition, characteristics, and place in nature are explained; the structure of the earth in its present form is studied; the history of its evolution, the age and characteristics of its strata, the chief geological features of each continent, and the forces at work are considered.

Botany is taught by text-book and field work. A brief outline is first obtained of plant structure, physiology, growth, and reproduction. Lectures explaining special forms of vegetable growth, and the flora of this country, complete the work.

Physiology. Every effort is made to impart clear ideas of the structure, parts, and functions of the human body. Special attention is given to the chemistry of foods, the laws of health, and the effects of stimulants and narcotics. Suggestions are also made as to poisons and their antidotes, the care of the sick, disinfection and sanitation, and accidents and emergencies. The subject is illustrated by the use of a manikin, charts, and preparations.

Descriptive Chemistry is taught by text-books, lectures, and experiments. The object of the course is to give the student a general knowledge of the common elements, their sources, uses, compounds, and behavior toward other elements and compounds, and to drill the student in writing formulæ and solving chemical equations. To accomplish this, each student will be expected to spend at least five hours each week in the Laboratory, studying the characteristics and reactions of the elements and their compounds, and performing the experiments outlined in the text and lectures. Notes will be kept by each student, describing the experiment and giving the equation which represents the reaction taking place.

PHYSICAL CULTURE.

The health of the students is made a prime object of attention, and sanitary requirements are carefully observed. The Insti-

tute Gymnasium is furnished with Indian clubs, dumb bells, wands, rings, hoops, guns, wall pulleys, parallel bars, etc., and classes in Physical Culture are organized for the benefit of all students. The exercises practiced are such as tend to develop grace and strength. The Institute Campus of six acres furnishes facilities for exercises. Lawn Tennis and other outdoor games are encouraged and exercise in the open air is required.

ÆSTHETIC CULTURE.

It is intended that the pupils of the Institute shall have the influence unconsciously received from painting, music, and refined surroundings, as well as direct instruction in Literature, Music, and Art. Special instruction in Music and Art is given in the schools devoted to those subjects.

SOCIAL CULTURE.

Pupils are trained to observe the usages of good society. Meetings of various organizations for improvement in Literature, Music, and Art and receptions in charge of the pupils add variety to student life. No effort is spared to give the pupils the advantages of a cultured home. The purpose is to develop the social life of the Institution within itself. Students are not permitted, during term-time, to visit in neighboring towns. The number of social functions during the term is limited, and the consent of the Dean must be obtained for each function at least one month before it is to occur.

RELIGIOUS TRAINING.

The Institute is distinctly Christian in its influence. Morning and evening Chapel in the Hall of the Institute building is attended by all students in the Institute courses, special students, and women pursuing studies in the School of Music. College women living in the Institute attend evening Chapel.

Attendance upon Sabbath school and church services in town is required. All students have weekly recitations in Inductive Bible Study. The students have organized several classes for Scripture study.

The Young Women's Christian Association, a voluntary society open to the officers and students of the Institute, meets weekly. The regular Tuesday evening prayer-meeting, missionary and temperance work, special Bible Classes, are in charge of this Association.

SPECIAL BRANCHES.

1. Italian and Spanish may be taken up as optional studies. All optional studies must be pursued in connection with the regular classes.
 2. Bible instruction is given once a week throughout the entire course.
 3. Essays are required of all students each month, and themes each week.
 4. Two declamations are required of each student during each term.
 5. Exercises in either Elocution or Reading are required once a week of all classes.
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PUBLIC EXERCISES.

THE EXERCISES OF THE GRADUATING CLASS.

The Commencement Exercises of the Institute are held in the College Commencement Hall on Tuesday afternoon of Commencement week.

THE EXERCISES OF THE FOURTH YEAR CLASS.

The exercises of the Fourth Year Class, a combined musical and literary entertainment, are held in the Chapel of the Institute on the last Saturday evening in the month of April.

THE CONTEST IN ELOCUTION.

A contest in Elocution for the prize in that subject, open to all the members of the Institute, takes place in Bucknell Hall on the second Saturday evening in the month of May.

ALUMNÆ SOCIETIES.

The Alumnae Association holds its anniversary on Monday afternoon of Commencement week.

The Lewisburg Alumnae Club meets at the Institute on the second Tuesday of each month during term-time.

The Philadelphia Alumnae Club is composed of graduates living in and near that city.

STUDENTS' LOAN SOCIETY OF BUCKNELL INSTITUTE.

In June, 1887, there was organized in connection with Bucknell Institute an association for the purpose of assisting young women of limited means to obtain an education. A fund was established by gifts from the Alumnæ and friends of the Institute. The money is loaned to beneficiaries, who obligate themselves to return it, *without interest*, as soon after their graduation as they may be able.

But for the help of this Association, some of the best of our graduates would have been deprived of the training which has fitted them for the positions they now fill as teachers, authors, missionaries, and pastors' helpers.

During the last twenty years fifty-two young ladies received aid. More than one half of these have returned the loan in full.

The annual meeting for the election of officers is held in January.

The payment of one hundred dollars constitutes the donor a Life Member of the Association; five dollars annually, an Active Member.

Contributions should be sent to the Treasurer, Mrs. John T. Judd, Lewisburg, Pa. Any information will be given by the President, Mrs. Katharine B. Larison, Lewisburg, Pa., or Mrs. Calvin A. Hare, Corresponding Secretary, Lewisburg, Pa.

DEPARTMENT OF ELOCUTION.

MISS EDITH SCHILLINGER.

This department is open to all members of the Institute. Its aim is the correct and effective utterance of thought. Special attention is given to Voice Culture, Articulation, including Pronunciation and Expression. Weekly Rhetoricals afford opportunity for platform work. Bible reading and study of Shakspeare have places in the course. Special courses are offered to students who wish to take private lessons in elocution. Particular attention is given to curing persons of stammering and other defects in speech.

SPECIAL STUDENTS IN ELOCUTION.

NAME.	RESIDENCE.
ALBERTA LILLIAN BRONSON,	Girardville
MARY MORRIS CLAYTON,	Lewisburg
CECIL RUSSELL CHILDS,	Truxton, N. Y.

NAME.	RESIDENCE.
RACHEL MIRIAM DAVIS,	Woodstown, N. J.
MARIE DERE,	Lewisburg
BEATRICE EVANS,	Freeland
HARRY SCHEIDY EVERETT,	Slatington
HOWARD FARQUHAR,	West Brownsville
HOWARD VOELKER FISHER,	Tamaqua
NELLIE McLAUGHLIN FOLLMER,	Lewisburg
LENA GARVER FORGY,	McVeytown
GARNETT MARGARET FOX,	McKeesport
GRACE FREAS,	Narcissa
HAZEL ETTA GALLOWAY,	Lewisburg
MARGARET CHRISTINE GRETZINGER,	Lewisburg
ELIZABETH LOUDON HEINSLING,	Altoona
BLANCHE ELIZABETH HENDERSON,	Montgomery
NORMAN RAE HILL,	Newberry
RUSSELL CONWELL HOFFMAN,	Cheltenham
FREDERICK IGLER,	Scranton
MARY JANE IREY,	Danville
ALICE JOHNSON,	Lewisburg
EMMA ELIZABETH KEISER,	Mt. Carmel
HARRY XING KELLEY,	Brookville
AMELIA FRASURE McSPARRAN,	Philadelphia
GEORGE MIDDLETON,	Edwardsville
GEORGIA ANNA MOORE,	Altoona
RACHEL MOYER,	Mifflinburg
ELEANOR EMMA PROSS,	Lewisburg
ANNA ELIZABETH REED,	Milton
EVA MAY RITTENHOUSE,	Scottdale
MARIAN HARVEY ROGERS,	Columbus, N. J.
MARY FLORENCE ROLLINS,	Altoona
MARIAN ESTHER SHIVERS,	Haddonfield, N. J.
ADA ALBERTA SMITH,	Paxinos
HENRY G. WESTON SMITH,	Malvern
DONALD AMOS SPROUT,	Picture Rocks
RALPH LEE TALBOT,	Martin's Ferry, Ohio
SAMUEL PAUL TEAMER,	Malvern
BOYD HENRY WALTER,	Kittanning
FLORENCE DALE WOLFE,	West Lewisburg

THE ART DEPARTMENT.

MISS GEORGINA K. SCOTT.

The facilities for the study of Art have been greatly increased by the accommodations allotted to this Department, in a special studio, which provides such adjustments for admission of light, and unencumbered wall surface as to render it adapted for the execution and display of art productions.

The regular course in Art covers three years, with two lessons a week and daily practice in the Studio. This course offers favorable opportunity for work preparatory to professional study and teaching. It contemplates thorough instruction, both individual and class, in the fundamental principles of the subject, black-board work illustrative of the same; also lectures on various phases of the work as they arise, such as perspective, proportion, relation of heights, value of a line, human figure, and theory of color.

The course each year consists of:

A. Drawing—common objects from the flat, or enlargement by scale, antique, floral casts, still life, animals, etc.

B. Design as applied to flat objects.

C. Construction: The consideration of forms in three dimensions, representing solid objects; modeling in clay and wax; pottery and metals.

D. Fine Arts: Realistic treatment of form to its highest degree, through the medium of oils, water-colors, pastels, and china decoration. The work done under this head demands the exercise of all knowledge and training previously gained.

In the division of Fine Arts, students elect one of the four subjects named.

Record is kept of attendance, both upon lessons and practice hours of each week. On the successful completion of the entire course, a certificate of proficiency will be given.

Students who do not desire the certificate course, and whose interest is in Decorative Work, will receive the requisite instruction in the latest methods—China Painting, Tapestry, Dyeing, and Applied Design in other mediums and materials.

Charges for instruction in Art are as follows:

	<i>Per Annum.</i>
Drawing	\$24.00
Crayoning	33.00
Painting in Oil, Water Colors, Pastel, or on China	60.00
	<i>Per Lesson.</i>
Special individual instruction in Painting.....	\$1.00

All bills must be paid to the Registrar of the University, within the first ten days of each term.

Freehand Drawing is a part of the required work of the school without extra charge.

ART EXHIBIT.

On Saturday, Monday, and Tuesday of Commencement week, a display of art products by the pupils of the School of Art is made in the Studio. At this time a committee of Art students receives and entertains all those who visit the Studio.

STUDENTS IN ART.

NAME.	RESIDENCE.
FLORENCE MAY CLUM,	Scranton
MRS. N. F. DAVIS,	Lewisburg
HELEN HORTENSE EEDE,	Ballston Spa, N. Y.
VERA MILDRED FROST,	Brookville
MRS. B. W. GRIFFITH,	Lewisburg
HELEN HARE,	Lewisburg
CAROLYN H. HOPPER,	Lewisburg
MARY ELIZABETH MEHL,	Sharpsville
RUTH BARBARA MOHN,	Lewisburg
JEANNETTE CAROLYN OWENS,	Lewisburg
ANNA M. PINES,	Lewisburg
MARY FLORENCE ROLLINS,	Altoona
HELEN LAURA RUTH,	Hanover
CHARLOTTE SHIELDS,	Lewisburg
HELEN NESBIT TATE,	East Lewisburg

Students in Art, 15.

GENERAL INFORMATION.

ADVANTAGES.

The Bucknell Institute offers to young women superior educational advantages. Its location in a University town assures an atmosphere of study and the benefit of numerous literary exercises, lectures, and addresses. The students in the Institute have the use of the Library and apparatus of the Institute, and also of the College Astronomical Observatory, Chemical Laboratory, Museum and Library, and the various apparatus of the University. An isolated school could not provide for itself these advantages at a cost of less than a quarter of a million dollars.

During the year 1905 about forty thousand dollars was expended in enlarging and improving the women's buildings.

ADMINISTRATIVE AND OTHER REGULATIONS.

1. The general control of the Women's College, Institute, and School of Music is vested in the President of the University.

2. The government of the Institute, subject to such control, rests with the Dean.

3. Young women, whether attending the College, Institute, or School of Music, are subject to the rules and regulations governing young women attending the Women's College.

RULES.

The laws governing the Women's College are enacted by the Board of Trustees and a copy is given to each student when she enters the Institution.

Any officer of the Institute becoming cognizant of violation of regulations by any pupil shall report the same to the Dean, who shall make a record of the fact in a book provided for the purpose. Any second violation by the same pupil shall be reported to the President of the University; and if, in the judgment of the President of the University and the Dean, the offense be of sufficient gravity, the parent or guardian of the offending pupil shall be notified.

Violations of the regulations of the Women's College or infraction of the laws of morality are punished by private reprimand, deprivation of privileges, or private withdrawal from the Institution.

Summary punishment may be inflicted whenever the interests of the Institution demand it.

PRIZES.

I. BUCKNELL PRIZES.

The following prizes were founded by William Bucknell, of Philadelphia:

1. A First Senior Prize, to be awarded to the member of the graduating class who, being excellent in scholarship during the Senior Year, shall prepare the best essay.

2. A Second Senior Prize, to be awarded to the member of the graduating class who, being excellent in scholarship during the Senior Year, shall prepare the second best essay.

For the year 1911 the First Prize of twenty-four dollars was awarded to Mary Edna Starook, and the Second Prize of sixteen dollars to Ruth Barbara Mohn.

3. A Third Senior Prize to be awarded to the member of the graduating class who shall attain the highest grade in the studies of the Senior Year. This excludes all grades of studies not in the Senior Year, all Senior Studies taken before the Senior Year, and all studies not taken in the Institute.

For the year 1911 this prize of twenty-five dollars was awarded to Helen May Brown.

4. A First Fourth Year Prize, to be awarded to the member of the Fourth Year Class who, being excellent in scholarship during the year, shall prepare the best Fourth Year essay.

5. A Second Fourth Year Prize, to be awarded to the member of the Fourth Year Class who, being excellent in scholarship during the year, shall prepare the second best Fourth Year essay.

For the year 1911 these prizes were awarded as follows: Margaret McClure received the First Prize of twenty dollars; Isabelle Bowman Wolfe the Second Prize of fifteen dollars.

The fund consists of \$2,000, the income from which is to be devoted to these prizes annually in a manner more particularly defined in the donor's communication to the Trustees.

Themes for the Bucknell Essay Prizes will be drawn from the following works:

For 1912 Shakspeare's Merchant of Venice, Scott's Marmion, Macaulay's Samuel Johnson, Milton's Comus, L'Allegro, and Il Penseroso.

II. THE ELOCUTION PRIZE.

A prize in Elocution is offered to the student who shall give the best recitation at the Annual Contest.

For 1911 the prize was awarded to Miss Elizabeth Loudon Heinsling.

EXPENSES OF INSTITUTE STUDENTS.

I. Boarding Students. The regular charge for Boarding Students is \$290.00 per annum; the other expenses, spending money, books, and clothing, will vary with the individual student.

An additional charge will be made when one student occupies a double room alone in the Main Building. Extra charge will also be made for front corner rooms in the West Wing.

Students are charged extra for the washing of dresses, and for the washing of more than twelve pieces per week.

For the rooms in the Bucknell Cottage and in New Cottage there is an extra charge, depending on the location.

Students from a distance will save inconvenience by applying for a room before the term opens. A deposit of ten dollars is required when a room is chosen. This amount is credited upon the regular term bills. Should a student for good reason be unable to return, the deposit will be refunded, provided notice is sent to the Registrar not less than four weeks before the opening of the term for which the room is engaged.

Students will be charged for damage done to furniture or to the room they occupy.

II. Day Students. The charges for Day Students amount to \$85.00 per annum.

III. Extra Studies. The charges for Elocution, Drawing and Painting, and Music will be found under those titles.

All bills must be paid within the first ten days of each term.

Checks and drafts should be drawn in favor of the Registrar of the University.

No bill will be made out for a shorter period than one term; and no deductions will be made, except in the charge of board, in case of a prolonged absence on account of sickness.

The expenses for Music, Printing, and other charges ordinarily incurred at Examination and on anniversary occasions, are paid by the class or classes which incur the expenses.

The fee for Graduation and Diploma is \$5.00.

Free scholarships, covering tuition, are awarded to children of Ministers of the Gospel *in actual service*.

For information respecting the Institute, address the Dean of the Department for Women, Thomas A. Edwards, A.M., or the President of the University.

BUCKNELL SCHOOL OF MUSIC.

INSTRUCTORS.

THOMAS ALPHEUS EDWARDS, A.M.,
DEAN.

PAUL GEORGE STOLZ, B.S.,
ASSISTANT DIRECTOR. HARMONY, SCIENCE OF MUSIC.

CHARLOTTE S. ARMSTRONG,
VIOLIN AND PIANO.

HARRIET MAY HOLLINGSHEAD,
PIANO AND PIPE ORGAN.

BESSIE SUTHERLAND RICE, B.S.,
HARMONY AND VOCAL MUSIC.

NAMES OF STUDENTS.

NAME.	COURSE.	RESIDENCE.
WALTER THOMAS AFRICA,	<i>Voice.</i>	Huntingdon
ROBERT IRA ALLEMAN,	<i>Piano.</i>	Lewisburg
MINNIE MAY ANDREWS,	<i>Piano.</i>	North Girard
EDNA IRENE ANGSTADT,	<i>Piano.</i>	Lewisburg
MARIAN RUTH BANCROFT,	<i>Piano.</i>	Altoona
GEORGE THOMAS BENDER,	<i>Piano.</i>	Lewisburg
DOROTHY LOUISE BENFER,	<i>Piano.</i>	Lewisburg
ARTHUR BILGER,	<i>Violin.</i>	Winfield
DAVID NATHANIEL BOSWELL,	<i>Voice.</i>	Lewisburg
MARY NINA BOSWELL,	<i>Piano, Voice.</i>	Lewisburg
LUCY BROWN,	<i>Piano.</i>	Lewisburg
MARTHA ELLA BROWN,	<i>Piano.</i>	Lewisburg
RUTH BROWN,	<i>Piano.</i>	Lewisburg
MARY MAGDALENE BUBB,	<i>Piano.</i>	Dalmatia
VERA CAMPBELL,	<i>Voice.</i>	Berwyn
FLOSSIE ELEANOR CLARK,	<i>Voice.</i>	Sunbury
SAMUEL HENRY COULTER,	<i>Voice.</i>	Lamney, Ireland

NAME.	COURSE.	RESIDENCE.
RACHEL MIRIAM DAVIS,	<i>Guitar.</i>	Woodstown, N. J.
MILES ELTON DEANE,	<i>Voice.</i>	Altoona
RACHEL EGER DECKER,	<i>Voice.</i>	Montgomery
CLARENCE LEROY DERR,	<i>Piano.</i>	Milton
HAROLD MCILVAINE DORELL,	<i>Violin.</i>	Alloway, N. J.
HELEN HORTENSE EEDE,	<i>Voice.</i>	Ballston Spa, N. Y.
EDNA MATILDA EISLEY,	<i>Voice.</i>	Lewisburg
BEATRICE EVANS,	<i>Piano, Voice.</i>	Freeland
HARRY SCHEIDY EVERETT,	<i>Voice.</i>	Slatington
WILLIAM HENRY EYSTER,	<i>Piano, Harmony.</i>	Fisher's Ferry
HOWARD LESTER FARQUHAR,	<i>Voice.</i>	West Brownsville
ANNA ELIZABETH FISHER,	<i>Voice.</i>	Lewisburg
HOWARD VOELKER FISHER,	<i>Voice.</i>	Tamaqua
MARY ALICE FOUST,	<i>Piano, Harmony.</i>	Milton
GARNETT MARGARET FOX,	<i>Voice.</i>	McKeesport
BEATRICE MAY FRYMIRE,	<i>Piano.</i>	Watsonstown
SIDNEY GRABOWSKI,	<i>Piano.</i>	Nanticoke
FRED RAYMOND GRENINGER,	<i>Voice.</i>	Booneville
LORENA GULICK,	<i>Voice.</i>	Danville
MARTHA HANN,	<i>Piano.</i>	Lewisburg
ALBERT JOSEPH HAMLIN,	<i>Voice.</i>	Philadelphia

NAME.	COURSE.	RESIDENCE.
MARIAN KATHRYN HARMAN,	<i>Voice.</i>	Montoursville
COLVIN HASSENPLUG,	<i>Piano.</i>	Milton
ETHEL MAY HEITER,	<i>Piano.</i>	Milton
MARY HEITER,	<i>Piano.</i>	Lewisburg
BLANCHE ELIZABETH HENDERSON,	<i>Piano.</i>	Montgomery
NORMAN RAY HILL,	<i>Piano.</i>	Newberry
WILLIAM HARRY HIMMELREICH,	<i>Voice.</i>	Lewisburg
CLARA MATILDA HINE,	<i>Piano.</i>	Lewisburg
DALE DAVIS HOLLENBAUGH,	<i>Voice.</i>	Williamsport
MARGARET POLLOCK JACOBS,	<i>Piano.</i>	Milton
MARY SUSANNE JONES,	<i>Voice.</i>	Watsonstown
EMMA ELIZABETH KEISER,	<i>Voice, Organ.</i>	Mt. Carmel
ELIZABETH KERCHNER,	<i>Voice.</i>	Sunbury
MARGARET ELMIRA KLINE,	<i>Piano.</i>	Mifflinburg
MARY FRANCES KLING,	<i>Piano.</i>	Lewisburg
WILMA HARRIET S. KNAPP,	<i>Voice.</i>	Hawley
GUY KROMER,	<i>Voice.</i>	Milton
JAMES ARTHUR R. KROUSE,	<i>Violin.</i>	Lewisburg
HELEN DALTON LEDIARD,	<i>Piano, Violin, Voice.</i>	Brooklyn, N. Y.
RUTH MARGUERITE LENINGTON,	<i>Piano, Harmony.</i>	Scranton
HELEN LEVEGOOD,	<i>Voice.</i>	Jersey Shore

NAME.	COURSE.	RESIDENCE.
EVELYN MCGANN,	<i>Piano.</i>	Lewisburg
LAURA ELLEN MCGANN,	<i>Voice.</i>	Lewisburg
JENNIE FOLLMER McLAUGHLIN,	<i>Piano, Harmony.</i>	Lewisburg
AMELIA FRASURE McSPARRAN,	<i>Voice.</i>	Philadelphia
WALTER GALLOWAY MEEK,	<i>Piano, Violin.</i>	Allenwood
MARY ELIZABETH MEHL,	<i>Voice.</i>	Sharpsville
JANET STEELE MENCH,	<i>Piano.</i>	Mifflinburg
CARRIE ELIZABETH MENSCH,	<i>Organ.</i>	Mifflinburg
CARLETON ALFRED MICHAEL,	<i>Violin.</i>	Factoryville
MRS. CHARLES E. MILLER,	<i>Voice.</i>	Glen Iron
JAMES FREDERICK MOORE,	<i>Organ.</i>	Milton
WILLIAM GRAYDON PAINTER,	<i>Piano.</i>	Red Top
ROBERT JOHN PARMENTER,	<i>Voice.</i>	Elmira, N. Y.
ELEANOR EMMA PROSS,	<i>Piano.</i>	Lewisburg
MARTHA ELLEN RANCK,	<i>Piano, Harmony.</i>	New Columbia
ELIZABETH RAUP,	<i>Violin.</i>	Milton
MERVYN WILSON REMALY,	<i>Piano, Voice.</i>	Mazeppa
EVA MAY RITTENHOUSE,	<i>Piano.</i>	Scottdale
MARIAN HARVEY ROGERS,	<i>Piano.</i>	Columbus, N. J.
MARY FLORENCE ROLLINS,	<i>Piano.</i>	Altoona
DWITE HAYDEN SCHAFFNER,	<i>Piano, Harmony.</i>	Falls Creek

NAME.	COURSE.	RESIDENCE.
INEZ GRAY SELLERS,	<i>Piano.</i>	Waddle
HAROLD TYSON SHARPE,	<i>Voice.</i>	Philadelphia
MYRTLE ELIZABETH SHIPMAN,	<i>Voice.</i>	Sunbury
DAVID YEAKEL SIESHOLZ,	<i>Voice.</i>	Alburtis
BESSIE SMITH,	<i>Voice.</i>	Lewisburg
KATHERINE SMITH,	<i>Voice.</i>	Milton
MARGARET SMITH,	<i>Guitar.</i>	Lewisburg
ANNETTA AMELIA STAHL,	<i>Voice.</i>	Lewisburg
ELIZABETH STEPHENSON,	<i>Voice.</i>	Lewisburg
MARY A. STERNER,	<i>Voice.</i>	Montgomery
RUBY VANNINKA STUCK,	<i>Voice.</i>	Tower City
RALPH LEE TALBOT,	<i>Voice.</i>	Martin's Ferry
EDNA TATOR,	<i>Voice.</i>	Milton
RUTH TATOR,	<i>Piano.</i>	Milton
ALFRED SMITH VAN OSTEN,	<i>Voice.</i>	Philadelphia
KATHERINE MILLER WAGNER,	<i>Piano.</i>	Lewisburg
HELEN DOWLING WAINWRIGHT,	<i>Piano.</i>	Columbus, N. J.
BOYD HENRY WALTER,	<i>Voice.</i>	Kittanning
MARGARET CELESTE WEDDELL,	<i>Voice.</i>	Dover, Del.
DOROTHY WOLFE,	<i>Piano.</i>	Lewisburg
HENRY CHARLES WOLFE,	<i>Violin.</i>	Lewisburg

NAME.	COURSE.	RESIDENCE.
ISABELLE BOWMAN WOLFE,	<i>Guitar.</i>	Lewisburg
GERTRUDE WOOD,	<i>Piano.</i>	Lewisburg
MARY ELIZABETH YOUNG,	<i>Violin.</i>	Lewisburg
LETTA MARIE ZEARFOSS,	<i>Piano.</i>	Lewisburg

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<hr/>	
Total Lessons per Week.....	166
Total Pupils	105

COURSES OF STUDY.

The School of Music is under the general supervision of the Dean of the Department of Women, but has its own corps of instructors, each a specialist in his line. The courses are designed to afford every needed facility for the study of Vocal and Instrumental Music. An ample supply of instruments from the best makers is provided for practice.

INSTRUMENTAL MUSIC.

COURSE FOR THE PIANO-FORTE OF FOUR YEARS FOR GRADUATION.

The pupil is required to pursue the most thoroughly approved modern system of technical training. After the first rudiments have been mastered, the course of instruction leads to the practice of *études*, designed to unite with purely technical drill the requirements of artistic style and expression.

PIANO.

FIRST YEAR.

Musical Exercises and Gymnastics to prepare the hands for playing; Gurlitt, *Technic and Melody*, Book I; Kohler, *Practical Method*; Lebert and Stark, *Instruction Book*, Part I; Loeschorn, Op. 84 and 65; Kohler, Op. 157; Duvernoy *School of Mechanism*, Op. 120; *Etudes* by Biehl, Lemoine, LeCouppéy, Bertini and Czerny; introductory technical work; Sonatines, Kuhlau, Clementi, Schytte; pieces by Behr, Bohm, Lange, Lichner and others.

SECOND YEAR.

Heller, *Studies*, Op. 45, 46 and 47; Loeschorn, Op. 66; Czerny, Op. 299; Berens, Op. 61; Easier Mozart, Haydn, Beethoven Sonatas; Little Preludes by Bach; Bach *Inventions*, Scales, Arpeggios and

other technical work continued; Salon pieces by Bendel, Kullak, Merkel, Nevin and other composers; preparatory octave and chord work.

THIRD YEAR.

Czerny, Op. 740; Cramer, 50 Studies; Clementi Gradus ad Parnassum; Moscheles, Op. 70; Bach Suites, Handel Suites, Scarlatti pieces, Beethoven Sonatas; introductory Chopin work; compositions by Grieg, Godard, MacDowell, Moszkowski and others; continued octave and chord work.

FOURTH YEAR.

Bach Preludes and Fugues; Italian Concerto; Chromatic Fantasy and Fugue; Kullak Octave Studies; Selected Chopin Etudes; Liszt Studies; Beethoven Sonatas, Op. 53 and 57; other compositions by Chopin, Liszt, Schumann, and selected works by Tausig, Moszkowski, Saint-Saens, Brahms and Rubinstein.

The outline is necessarily quite elastic and will adjust itself to the individual ability, requirements and purposes of each student.

COURSE FOR PIPE ORGAN.

This course is based upon:

Dudley Buck's Pedal Studies, and upon the works of Rink, Batiste, Lefébure-Wely, Guilmant, and others.

COURSE FOR THE VIOLIN.

The course is based upon:

The methods of Wohlfahrt, Schubert and others for elementary students; the first part of De Beriot's School; Thirty-six Studies, Kayser; De Beriot's Second and Third Positions; Mazas Etudes Specials; Hermann's One Hundred Studies; Violin School Ovide Musin; Bowing Studies, Casorti; Forty Studies, Kreutzer; Thirty-six Etudes, Fiorilla. Pieces and solos by the best writers for the instrument are used throughout the course to develop style, phrasing, etc. Sonatas by Beethoven, Gade, Grieg and others, and concertos of Rode and Viotti are required for graduation.

COURSE FOR THE VIOLONCELLO.

Instruction for this instrument is based upon:

Méthode Pratique pour de Violoncello, par S. Lee; studies by Piatti and Romberg.

COURSE FOR THE VIOLA.

Bruni's Methods and Studies, by Campagnoli.

COURSE FOR CONTRABASSO (DOUBLE BASS).

Bottesini's Method.

VOICE CULTURE.

COURSE OF THREE YEARS FOR GRADUATION.

Careful instruction is given in the use of the voice, and the correct manner of producing purity of tone. To secure control over the voice and gain for it flexibility, fullness, and durability, thorough drills are afforded in such technical exercises as:

Lamperti's and Vannuccini's Italian Methods, Vocalises of Sieber, Concone, Lütgen, Vaccai, Bonaldi, Bordogni, Marchesi, and Ponafka; Lamperti's Studies in Bravura Singing. For expression and the development of a pure style, practice is afforded in singing the best English, German, Italian, and French Songs, Operatic Arias and Solos from the Oratorios.

Careful instruction and drill are given in sight-singing; and all students seeking to complete the course in Voice Culture are expected to acquire reasonable proficiency in this branch of the art of music.

COURSE IN HARMONY.

The study of Harmony is included in the other musical work, and a sound knowledge of its principles is required of all graduates of the School of Music. The text-books used are: Bussler's Harmonic Exercises, Homer Norris's Practical Harmony, Richter's Counterpoint, and Reicha's Course of Musical Composition, or equivalents.

THE ORCHESTRA.

CLASSES FOR ALL ORCHESTRAL INSTRUMENTS.

Students who are sufficiently advanced in any of the above musical instruments will have opportunity of practice in string quartettes, trios, concertos, and symphonies of Beethoven, Mozart and Haydn.

RECITALS.

Frequent recitals in the presence of the faculty and students of the School of Music and their friends are held to accustom students to playing in public, and for mutual improvement.

On the Friday evening prior to Commencement week a public recital of the School of Music is held in Bucknell Hall.

The public examination of those who desire certificates of proficiency is held in Bucknell Hall the Saturday afternoon before commencement. At this time each pupil plays or sings two pieces of high grade, and reads an essay on some subject connected with music.

TUITION.

Extra tuition is charged for instruction in Music, as follows:

	<i>Per Annum.</i>
Vocal Music	\$60 00
Music on Piano or Organ.....	60 00
Violin	60 00
Harmony, in Class.....	18 00
Harmony, in private lessons.....	60 00
Use of Instruments for practice.....	10 00
Guitar and Mandolin, in Class.....	15 00
	<i>Per Lesson.</i>
Special individual instruction in Music.....	\$1 00

No reduction is made except in case of protracted illness.

Instruction in the Orchestra and in Harmony is free to pupils otherwise studying music.

Payment strictly in advance at the beginning of each term.

RESIDENCE OF MUSIC PUPILS.

Pupils in music reside in the Women's College and are under the care of the Dean of the Department for Women. Students pursuing any of the Institute courses can also take studies in music. Those who wish to make music a specialty are recommended to take at least one study each term in Language or Literature.

The regular charges for pupils in music, residing in the Institute, including one literary subject per term, are \$245 per annum. This *does not* include charges for instruction in music, which are determined by the number of lessons taken per week.

GRADUATION IN MUSIC.

Students who complete any of the Courses in Music and pass the examination, receive a certificate of proficiency. Students will not be taken as Seniors in Music until they have passed an examination before a committee consisting of members of the faculty and other appointed judges. Besides the examination before the Committee for admission to the Senior Class, students will be required to pass a preliminary examination at the opening of the spring term, and a final examination before Commencement week. Students will not be admitted to the final examination unless they have passed the preliminary examinations.

THE AVIRAGNET PRIZE.

Friends of the late Elysée Aviragnet have endowed a prize for excellence in Music. For 1911 this prize was awarded to Miss Mary Louise Marsh.

GENERAL REGULATIONS.

Young ladies attending upon the School of Music are subject to the administration and other regulations enacted by the Board of Trustees for the government of students in the Women's College. Students of Music are also entitled to all the privileges of the Women's College.

For information respecting the School of Music, address the President of the University, or the Dean, Thomas Alpheus Edwards.

1912.

Second Term Ends,.....Wednesday, March 20

Third Term Begins,.....Wednesday, March 27
Sermon before the Christian Association,.....Sunday, April 7
Declamation of the Third Form, Academy,.....Saturday, April 13
Exercises of the Fourth-Year Class, Institute,..Saturday, April 20
Contest in Elocution, Institute,.....Saturday, May 4
Exhibition of the Junior Class, College,.....Friday, May 10
Examinations,.....Tuesday to Friday, June 14
Exhibition, School of Music,.....Friday, June 14
Baccalaureate Sermon,.....Sunday, June 16
Sermon before the Education Society,.....Sunday, June 16
Examinations for Admission to College,.....Monday, June 17
Meeting of the Alumnæ of the Institute,.....Monday, June 17
Annual Meeting of the Trustees,.....Tuesday, June 18
Annual Meeting of the Alumni,.....Tuesday, June 18
Graduation of the Fourth Form, Academy,.....Tuesday, June 18
Graduating Exercises of the Institute,.....Tuesday, June 18
Oration before the Alumni,.....Tuesday, June 18
ANNUAL COMMENCEMENT, the 62d.,Wednesday, June 19

Fall Examinations for Admission to College.

Wednesday, September 18

First Term Begins,.....	Thursday, September 19
Election of Class Officers, 3 p. m.,.....	Friday, September 20
Reception by Christian Association,.....	Saturday, September 21
Introductory Address,.....	Monday, September 23
Matriculation,	Tuesday, November 26
Thanksgiving (recess of three days),....	Thursday, November 28
First Term Ends,.....	Wednesday, December 18

1913.

Second Term Begins,.....Thursday, January 2
Second Term Ends,.....Wednesday, March 19
Third Term Begins,.....Tuesday, March 25

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